County Borough of Wolverhampton.

# Annual Report

UPON THE

# HEALTH OF WOLVERHAMPTON

FOR THE YEAR 1895.

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County Borough of Wolverhampton.

# REPORT

UPON THE

# HEALTH OF WOLVERHAMPTON,

FOR THE YEAR 1895,

BY

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MEDICAL OFFICER OF HEALTH.

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# MEDICAL OFFICER'S REPORT,

## 1895.

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### *PREVALENCE AND PREVENTION OF INFECTIOUS DISEASE.*

Table 2 gives the weekly numbers of cases of certain diseases certified by Medical Men under the Infectious Diseases Notification Act. The crosses represent the degree to which the disease heading those columns prevailed, these are only rough approximations. Any certificate detected as erroneous before the close of the week is not entered.

Table 1 gives the total number of cases about which enquiries were made and which were recorded; no erroneous cases are entered in this table.

*Measles* is not reported by doctors under the Act, our cases are reported from the Schools, by the School Board Officers, or found by our own Inspectors. They are all inquired into and verified as far as possible by our Inspectors. Our returns include scarcely any cases amongst the better-off classes; they are only rough approximations to the real total number of cases.

*Small-Pox.*—During the First Quarter three cases of Small-Pox were reported in the East, during the Second, four in the West. These were the only cases heard of in the year. The following gives the particulars.

## Summary of Small-Pox cases in the Borough.

### EAST SUB-DISTRICT.

| Date when reported | No. | Age and Sex. | Vaccination Cicatrices. Number and Size. | Nature of Case — No. of Days in Hospital. | Remarks. |
|---|---|---|---|---|---|
| Jan. 3 | 1 | 16 F. | 4, slightly foveated, about 3d. each. | Very mild No illness after onset. A few scattered imperfect pocks. 37 days. | Infection not traced. Borough Hospital, January 3rd. |
| ,, 3 | 2 | 15 M. | 4, well foveated about 3d. each | No illness after onset. A very few imperfect pocks. 37 days. | Same house as above. Ill same time. Borough Hospital, January 3rd. |
| ,, 16 | 3 | 24 F. | 4, foveated, rather faint, about 3d. each | Same as above. 20 days. | Untraced. Borough Hospital, January 16th. |

### WEST SUB-DISTRICT.

| Date when reported | No. | Age and Sex. | Vaccination Cicatrices. Number and Size. | Nature of Case — No. of Days in Hospital. | Remarks. |
|---|---|---|---|---|---|
| April 10 | 1 | 19 M. | 1, well foveated, size of 3d, and 3 minute marks. | Only a few scabs on when reported. 17 days. | Employed at butcher's at Birmingham for last 8 months. Ailing 3 weeks ago. Home a fortnight; thought nothing of until next case taken ill. |
| ,, 10 | 2 | 22 M. | 2, foveated, rather less than 6d each | Rather numerous scattered pocks, all rapidly aborted. No illness after onset. 28 days. | Ill April 8th. Brother of above. |
| ,, 10 | 3 | 17 M. | 2, foveated, about 3d each | A few scattered pocks, all aborted. 28 days. | Ill April 10th. Brother of above. |
| ,, 11 | 4 | 14 M. | 2, foveated, nearly 3d. each. | About 8-12 pocks scattered over face and limbs Scarcely ill. 27 days. | Ill April 11th. Brother of above.<br>All removed to Borough Hospital same day as reported. |

The last cases illustrate, what was noticed in last Report, the feebleness of an old primary vaccination as a protection against a prolonged exposure to infection.

There were only three houses in which Small-Pox occurred. 1st, contained 6 persons, one had had Small-Pox formerly, the other 5 had been vaccinated in infancy (ages from 43—8), 2 of these got Small-Pox simultaneously, nature of infection not made out. 2nd, contained 8 persons, 7 had been vaccinated in infancy (ages from 68—2½), one was unvaccinated (baby, 11 months), one of the vaccinated got Small-Pox; when the Inspector called he also found at this house, a neighbour who had formerly had Small-Pox, carrying an unvaccinated baby. In the 3rd house there were 6 persons, one had had Small-Pox formerly, 5 had been vaccinated in infancy (ages from 22—7), four of these got Small-Pox as above described, when the Inspector called, he found a neighbour in the house who had been vaccinated. Vaccination and re-vaccination were carried out in each case as far as possible.

*Measles.*—The Quarterly cases of, and deaths from Measles since 1884 are as follows:—

| | | | | |
|---|---|---|---|---|
| | 1884 | 1885 | 1886 | 1887 |
| Cases | 272, 710, 143, 2 ; | 4, 2,...,17 ; | 21, 9, 189, 959 ; | 124, 17, 31, 22 ; |
| Deaths | 11, 66, 20, 1 ; | 1, ..., ,... ; | ..., .. , 8, 103 ; | 19, 4, 7, 1; |
| | 1888 | 1889 | 1890 | 1891 |
| Cases | 119, 149, 166, 435 ; | 150, 228, 78, 141 ; | 68, 45, 139, 230 ; | 73, 4, 11, 275 ; |
| Deaths | 9, 6, 5, 19 ; | 10, 11, 11, 8 ; | 3, 10, 5, 14 ; | 5,... .. , 20 ; |
| | 1892 | 1893 | 1894 | |
| Cases | 501, 415, 82, 33 ; | 21, 18, 106, 248 ; | 530, 294, 15, 4 ; | |
| Deaths | 21, 16, 3, 1 ; | 6, .. , 5, 10; | 46. 27, ..., ... ; | |
| | 1895 | | | |
| Cases | 2, 83, 215, 549. | | | |
| Deaths | ..., ..., 7, 33. | | | |

This year we were almost free from Measles until the close of May ; there had, however, been an epidemic outside the Borough on the East side, and considerable prevalence also in the districts bordering on the West. At the close of May, an outbreak commenced in the Steelhouse Lane vicinity, mainly affecting the children attending the All Saints' Infant School. In the beginning of July this outbreak extended through Horseley Fields, and later, round to Stafford Road. At the same time, on the West, it passed across Dudley Road to Brickkiln Street. During the Fourth Quarter, there was a severe increase in the prevalence in the above area in the West; in the East, it was rather severe in the Stafford Road, and there was a general increase over the Sub-District. Preventive measures were practically limited to prohibiting the school attendance of children from houses known to be affected. Information about cases was seldom early enough to render any other steps practicable.

*Scarlet Fever.*—We began recording our cases in 1884, but as we have only had notification since 1890 (inclusive) the returns before that year are probably less complete than those since. The death records in my possession go back to 1870; the following are the deaths since that year, and the known cases since 1884.

| | 1870. | 1871. | 1872. | 1873. | 1874. | 1875. | 1876. |
|---|---|---|---|---|---|---|---|
| Deaths | 54, | 26, | 69, | 121, | 34, | 26, | 58. |

| | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. |
|---|---|---|---|---|---|---|---|
| Deaths | 226, | 40, | 17, | 39, | 64, | 27, | 24. |

| | 1884. | 1885. | 1886. | 1887. | 1888. | 1889. | 1890. |
|---|---|---|---|---|---|---|---|
| Deaths | 37, | 46, | 5, | 16, | 17, | 6, | 13. |
| Cases | 212, | 244, | 47, | 168, | 194, | 124, | 500. |

| | 1891. | 1892. | 1893. | 1894. | 1895. |
|---|---|---|---|---|---|
| Deaths | 14, | 3, | 25, | 55, | 34. |
| Cases | 419, | 242, | 623, | 1096, | 592. |

The fatality varies in different periods, so that the deaths bear no ratio to the cases; as a rule with increased prevalence there is increased fatality, so that the higher death returns do not mean quite a proportionate increase in cases.

The following table gives Quarterly particulars as to the cases in the two Sub-Districts. None of the cases in the General Hospital were sent in by us.

| QUARTERS. | | | 1st | 2nd | 3rd | 4th | Year |
|---|---|---|---|---|---|---|---|
| EAST | Total | Cases ... | 96 | 36*a* | 40 | 62*b* | 234 |
| | | Deaths... | 11 | 2 | 1 | 2 | 16 |
| | Borough Hospital | Cases ... | 82 | 31 | 34 | 36 | 183 |
| | | Deaths... | 8 | 2 | ... | 1 | 11 |
| | General Hospital | Cases ... | 3 | ... | ... | ... | 3 |
| | | Deaths... | ... | ... | ... | ... | ... |
| | At Home | Cases ... | 11 | 5 | 6 | 6 | 28 |
| | | Deaths... | 3 | ... | 1 | ... | 4 |
| WEST | Total | Cases .. | 93 | 54 | 126 | 85*c* | 358 |
| | | Deaths... | 6 | ... | 7 | 5 | 18 |
| | Borough Hospital | Cases ... | 68 | 40 | 89 | 55 | 252 |
| | | Deaths... | 3 | ... | 6 | 3 | 12 |
| | General Hospital | Cases ... | 1 | ... | 4 | ... | 5 |
| | | Deaths... | ... | ... | ... | ... | ... |
| | At Home | Cases ... | 24 | 14 | 33 | 27 | 98 |
| | | Deaths... | 3 | ... | 1 | 2 | 6 |

(*a*) Four of these were from a Canal Boat, being due to an overlooked case.
(*b*) Thirty-four in the Workhouse, twenty treated there (one died).
(*c*) Three of these were in another Public Institution.

The reduction in Scarlet Fever this year is peculiarly satisfactory as confirming the belief that 1894 was a year of maximum prevalence, and that therefore in comparison with former years, 1894 should be contrasted with those of highest deaths, such as 1873, 1877, 1881. This establishes the fact that when natural variations are taken into account there is on the whole a great diminution in the number of deaths, and therefore we may also conclude in the number of invalids, from Scarlet Fever. The summary given last year of the results, as regards the check of further spread of infection in the houses attacked by Hospital removal was so striking, that I think it well to give the result for this year too. It will be remembered that no account is taken of houses where there are no susceptible children after the first case attacked.

East Sub-District.—During the year there were 69 instances in which no second case occurred after the removal to the Hospital of a first case. In these 69 houses there remained 223 children who had not previously had Scarlet Fever.

In one house 2 children were taken ill simultaneously, they were removed, and 2 children remained free.

In 12 instances, secondary cases occurred without Hospital removal, there were 18 such cases; they occurred at the following intervals after the previous case was taken ill; one day, 2 cases; two days, 4; three days, 3; four days, 2; five days, 3; sixteen days, 1; twenty-nine days, 1; seventy days, 1; and in one case the duration was doubtful.

In most of these Hospital removal was ultimately resorted to, and in seven instances, where 24 susceptible children still remained, there was no further recurrence.

Thus in 77 instances there was no further case after Hospital removal, though 249 children remained in these houses.

In 16 instances further cases occurred *after* Hospital removal; 22 cases so occurring, at the following intervals after the removal, one day, 7 cases; 2 days, 7; 3 days, 2; 4 days, 2; five, six, seven, and eight days, 1 each. The first 16 were probably infected before the removal took place; so that only 6 cases can be suspected to be due to infection left behind; and even of these all may have been infected before the removal.

In nine of these sixteen houses no further susceptible children remained after ultimate Hospital removal; in the other seven houses there remained 22 children who escaped infection. So that altogether 271 children escaped infection after Hospital removal.

West Sub-District.—There were 109 instances in which one case of Scarlet Fever was removed and no other occurred. In these 109 houses there remained 323 susceptible children.

In four houses, 2 cases in each occurred simultaneously; these were removed and 7 children remained unattacked.

In 34 instances secondary cases occurred without Hospital removal; there were 53 such cases; they occurred at the following intervals after the preceding case had been taken ill; one day, 11 cases; two days, 9; three days, 11; four days, 4; five days, 5; seven days, 2; eight days, 3; twelve days, 2; 1 each at nineteen, twenty-four, twenty-nine, thirty-five, forty-six, and a doubtful interval.

In many of these Hospital removal was ultimately effected; in thirteen instances there was no recurrence, 31 children escaping.

Thus in 126 houses there was no further case after Hospital removal, though 361 children remained.

In 22 houses further cases occurred *after* Hospital removal; 26 cases so occurring; at the following intervals after the removal; one day, 6 cases; two days, 4; three and four days, 1 each; five days, 4; six and eight days, 2 each; eleven and twelve days, 1 each; seventeen, eighteen, twenty-one, and twenty-two days, 1 each. The first 11 cases were probably infected before the removal took place. So that only 15 could be considered due to failure; of these probably 7 more were not.

In seven of these 22 houses all children were attacked; but in the other fifteen, 43 children remained unattacked after final Hospital removal. So that altogether 404 children escaped infection after Hospital removal.

In none of the foregoing summaries is any account taken of houses where, besides the primary case of Scarlet Fever, there is no child in the house who is unprotected by a previous attack. Such instances would not affect the conclusions to be drawn.

In the East Sub-District, cases were treated at home in only 22 houses during the year; of these in nine there was no other child; in seven the other children were at once sent away; in four instances death was very early. In only three houses was prolonged isolation actually attempted, the other children, 7 in number, being kept at home. In two of these houses secondary cases occurred. Of the 7 children 5 took Scarlet Fever; the intervals after previous illness being; two days, 1 case; three days, 2; twenty-nine and sixty-five days, 1 case each.

In the West Sub-District, cases were treated at home in 73 houses. In 31 there was no other child. In 18 the other children were sent away. In one, death was very early. In only 24 houses were cases actually isolated, other children being kept at home, 54 children being so kept. In 13 of these 24 houses there were secondary cases, 21 of the 54 children being attacked. These children were taken ill at the following intervals after the preceding case; one day, 1; two days, 2; three days, 3; four days, 3; five and six days, 2 each; eight days, 3; fourteen days, 2; twenty-one, thirty-five, and forty-six days, 1 case each.

The Summary for the Borough is as follows:—Hospital removal was effected in 241 households, after the first removals there remained in these houses 723 children. In 203 of these houses there was no recurrence after removal, 610 children escaping. In only 38 houses was there recurrence, 48 further children being attacked; in these 38 houses 65 children still escaped after final Hospital removals. Of the 48 secondary cases, 23 occurred within three days of the removal and were probably infected before, so that only 25 may possibly be due to infection remaining behind.

Secondary cases occurred in many houses where Hospital isolation was afterwards resorted to, but as in most of these instances no proper home care was taken, it would be obviously unfair to compare them with the Hospital removal households.

Cases were isolated at home, other children being kept in the house, in 27 houses; there being 61 children in these houses besides the primary cases. Secondary cases occurred in 15 of these houses, 26 children being attacked. 9 of these cases occurred within three days of the primary attack and were therefore probably infected before any care was taken; so that only 17 may possibly have been due to failure of care. The following tabular statement shows the results more clearly:—

| | Hospital Removal. | Home Isolation. |
|---|---|---|
| Total houses ... ... ... | 241 | 27 |
| Cases recurred in ... ... ... | 38 or 15·7% | 15 or 55·5% |
| Number of children after primary cases ... ... ... ... | 723 | 61 |
| Number subsequently attacked ... | 48 or 6·6% | 26 or 42·6% |
| Number possibly due to failure ... | 25 or 3·4% | 17 or 27·8% |
| Number of children escaping ... | 675 or 93·3% | 35 or 57·3% |

If we add the above figures to those for 1894 we get more reliable statistics; the two years give the following:—

| | Hospital. | Home. |
|---|---|---|
| Total houses ... ... ... | 805 | 72 |
| Cases recurred in ... ... ... | 98 | 39 |
| Number of children after primary cases ... ... ... ... | 2,385 | 174 |
| Number of these attacked ... | 130 or 5·4% | 65 or 37·3% |
| Number possibly due to failure ... | 60 or 2·5% | 43 or 24·7% |
| Number of children escaping ... | 2,255 or 94·5% | 109 or 62·6% |

Had the 2,385 children in the first column been attacked at the same rate as the 174 in the second, there would have been 890 cases instead of 130, so that 760 children were apparently saved from Scarlet Fever by Hospital isolation. But in point of fact the actual number saved was probably far more, because in the 72 houses where cases were treated at home there was fair opportunity for isolation (otherwise removal would have been insisted on); but in the great majority of the 805 houses from which the cases were removed there was no possibility of any isolation. As I pointed out in my last Report these figures only deal with spread of infection in the actual households attacked; they take no account of the spread of infection from house to house. And this latter would probably be far greater than the former; remembering the free intercourse amongst the poor, especially in case of any illness, and considering how early healthy infectious convalescents from Scarlet Fever would be mixing with their neighbours, it would be difficult to imagine what would have occurred had the 2,000 or more cases (*i.e.* primary and probable secondary together) been left at their homes. Instead of the 89 deaths of 1894 and 1895 we should almost certainly have exceeded the 266 deaths of 1877 and 1878 (for our population is now one-sixth greater) with a corresponding amount of sickness and suffering.

*Diphtheria.*—This disease has been in a sense our gravest cause of anxiety during the year, its very exceptional prevalence and fatality is seen in the following. The Quarterly cases of, and deaths from Diphtheria in the Borough since 1890 have been—

| | 1890 | | | | 1891 | | | | 1892 | | | | 1893 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cases | 11, | 3, | 4, | 5; | 8, | 8, | 6, | 11; | 1, | 7, | 4, | 4; | 7, | 5, | 12, | 11; |
| Deaths | 3, | ..., | ..., | 1; | 1, | 2, | 1, | 1; | .., | 3, | 1, | ...; | ..., | 1, | 1, | 3; |

| | 1894 | | | | 1895 | | | |
|---|---|---|---|---|---|---|---|---|
| Cases | 11, | 16, | 33, | 22; | 34, | 78, | 56, | 140. |
| Deaths | 5, | 8, | 10, | 10; | 19, | 24, | 14, | 27. |

The Annual cases and deaths in the Sub-Districts have been—

| | | 1890 | 1891 | 892 | 1893 | 1894 | 1895 |
|---|---|---|---|---|---|---|---|
| EAST | Cases | 11 | 8 | 3 | 14 | 36 | 88 |
| | Deaths | 2 | 1 | 2 | 2 | 20 | 29 |
| WEST | Cases | 12 | 25 | 13 | 21 | 46 | 220 |
| | Deaths | 2 | 4 | 2 | 3 | 13 | 55 |

Our death records go back to 1872, and for the 22 years preceding 1894 the annual deaths from Diphtheria averaged 5·5, the highest return was 10, and this was only reached three times. The deaths last year were 33, and in the present rise to 84. This alarming increase has misled many to suppose that there is something radically wrong in our Borough, and that it is incumbent on us to find out and remove the cause; this is probably altogether a misapprehension. Up to a few years ago Diphtheria was practically a disease of rural districts, and the large towns were (like our Borough) remarkably free from it. During the last few years, however, it has invaded the towns, and its prevalence in them has rapidly increased. Wolverhampton has really been rather behind the average of the towns in thus being attacked; and though it has now suffered severely, I doubt if it is worse than some other towns have been, remembering that Diphtheria is essentially a disease of young children, and that we have an excessive child population. It is noteworthy that in the neighbouring city of Birmingham there has been an unprecedented increase in Diphtheria this year; and that some adjacent districts have suffered in proportion far more severely than we have. This general increase in Diphtheria has been investigated by many skilled experts, and the main increase in our knowledge up to the present has been rather in undoing some old erroneous notions than in throwing much new light on the subject. Most investigations point to our increased school attendance as a probable factor in spreading the disease; the close contact of the children in their classes, their habits in sharing sweets (often passing them from mouth to mouth), the cleaning of slates by spitting on them, and the kissing amongst the younger children, all would readily communicate infection; and as mild cases of Diphtheria are constantly overlooked, it is evident that in the above there is terrible facility for the rapid spread of the disease. Of course this does not imply that the schools in any way cause or originate Diphtheria, cases must already exist before the schools can act as distributors; so that the main question is really still untouched. It should be noted that this power of schools to disseminate infection is more likely to be potent in the case of Diphtheria than in those of diseases like Scarlet Fever, Measles, or Whooping Cough; for the latter have certain distinctive features that renders it rather rare for a case to be quite overlooked; but a mild case of Diphtheria may have nothing to draw attention to it; moreover it is now established not only that the germs of Diphtheria sometimes linger in the throat and nasal passages for a long time after all symptoms have ceased, but that they may be present in the throats of persons who have never had any symptoms noticed. In any of these cases attendance at School would be most dangerous. Another point which seems fairly made out is that Diphtheria has apparently very little to do with ordinary insanitary conditions, it has been severely epidemic in several towns where the sanitary arrangements are much above the average.

In spite of our large number of cases and excessive death-rate the only occasion on which Diphtheria could have been said to be epidemic was during the Second Quarter, and in the Whitmore Reans. I went into the particulars of this local epidemic very fully in the Report for that Quarter. During the whole year after the First Quarter (see Tables 1 and 5) the incidence was much heavier in the West Sub-District than in the East; but the cases were fairly scattered except in the Second Quarter, when 57 out of 70 cases and 17 deaths out of 18 were in the Whitmore Reans constituting the local epidemic there.

The most appalling fact in the whole outbreak, and the fact which in the main caused probably three-fourths of our cases, was the gross personal negligence displayed even by persons of fair education and apparently fair intelligence. In the case of a disease with such a bad notoriety as Diphtheria one would have anticipated rather an excess of care than otherwise; so far from this being the case it was quite exceptional to find any care taken at all. Cases were visited by friends who got the disease from them; a child with Diphtheria was constantly found in the room with the rest of the household and playing with the other children; they have been even found in the same bed with other children; others have contracted the disease through kissing cases (or in one instance the corpse); parents have taken it from children and children from parents; a servant with Diphtheria was found going about her work just as usual. All the above blunders were committed *after* the Diphtheria had been recognized and reported to us, and many of them after our Inspector had called and advised about the care needed. Another very common circumstance was to find that there had been one or more cases of Sore Throat in a house which were taken no notice of, and these were followed by severer throats, for which a doctor was called in and reported Diphtheria; many fatal cases occurred thus. A most instructive instance of how infection may be passed on is the following:—A lad, X, is reported as having Diphtheria, Inspector calling to inquire finds him going about as usual; a playmate, J. L., was a good deal with him; X had been taken ill about October 11th, he died October 21st. J. L. had a sore throat to which no one paid any attention; he slept with his brother, who got Diphtheria on November 2nd, dying on the 4th. Of course it was not until this last case was reported that we heard of J. L. having been with X, and having had a sore throat. All these matters have already been alluded to in my Quarterly Reports at more length. With such neglect it is not surprising to find that a very large proportion of our cases have been second, third, and even more (we have had as many as five) cases in the same house as a previous one. We have also often found instances, like that given above, where the infection has been conveyed from house to house; this is difficult of detection, the mode of carriage being frequently indirect; so that, taking the general negligence into account, we may fairly conclude that the detected instances are only types of what is constantly occurring. I am therefore quite confident that whatever circumstances may have brought Diphtheria amongst us, the main factor in causing so heavy a prevalence has been gross neglect. This is the more to be regretted because the localization of the infection in Diphtheria (in the throat, &c.) ought to render its isolation fairly safe; and nearly all our cases occurred under circumstances where home isolation was quite practicable.

I have fully gone into the question of Hospital Isolation in my Second Quarterly Report, pointing out that it has been only needed in a small proportion of cases, and is very difficult of adoption.

Besides personal carelessness there is one other point which has attracted my attention. Most experience of Diphtheria has hitherto associated it with conditions of cold and damp: ours has been almost the reverse of this. The following is from my 1895 Second Quarterly Report, "in spite of the high temperature, and the apparently very fine weather, there were two very detrimental factors; first, extreme variations in temperature; second, and much more serious, excessive lack of moisture; the latter condition is always a serious one in towns, partly no doubt because of the lack of the cleansing effects of rain on all exposed surfaces, and on the drains and sewers; but still more because of the facility with which dirt of all sorts becomes dried and pulverized and carried about freely as dust. A similar condition prevailed during the First Quarter of 1893, and during an Influenza Epidemic prior to that." In the above, as in the two prior reports alluded to, I was discussing dust as a possible agent for the disemination of Influenza. During nearly the whole of 1895 we had from various causes, exceptional lack of water. At first, the long intense frost caused a large amount of dirt and dryness ; later, the rainfall was very deficient throughout the year. Dust is certainly provocative of ordinary Catarrh, and such was frequently prevalent during the year, with marked affection of the throat. This would increase the susceptibility to attack by the Diphtheria germs, even if the latter were not themselves (which is not probable) promulgated in dust. During the Second Quarter quite a number of cases of Diphtheria were reported as following an attack of Influenza, which was then prevalent, and itself characterized by severe throat Catarrh.

*Typhoid Fever.*—The cases and deaths for the last six years are :—

| | | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 |
|---|---|---|---|---|---|---|---|
| EAST ... | Cases .. | 22 | 34 | 22 | 53 | 27 | 78 |
| | Deaths .. | 6 | 5 | 6 | 7 | 10 | 10 |
| WEST ... | Cases ... | 22 | 64 | 53 | 83 | 54 | 56 |
| | Deaths ... | 3 | 11 | 9 | 16 | 7 | 8 |
| BOROUGH | Cases ... | 44 | 98 | 75 | 136 | 81 | 134 |
| | Deaths ... | 9 | 16 | 15 | 23 | 17 | 18 |

This would seem to indicate an increase in Typhoid Fever in the East, but it really only means that more of the cases actually present have been reported. I pointed out in the 1894 Report that the cases reported that year in the East were probably only one-third of the actual cases. The deaths being no more confirms the above. As with Diphtheria the most notable fact in connection with our Typhoid cases is the number of cases due to personal infection ; in many instances where the disease occurred in the houses of the very poor this was nothing surprising, but it is a matter for great regret inasmuch as with very little care direct personal infection in Typhoid Fever ought to be avoidable.

In no case was any cause found common to any number of cases, but a succession of cases in a house was very frequent ; and two local outbreaks were plainly due to close personal intimacy with sick persons. Three cases occurred in one house where shallow well-water was used, two other separate cases were associated with wells ; all these waters were condemned on analysis. Five cases were of nurses attending Typhoid Fever patients. Particulars have already been given in the Quarterly Reports.

*Whooping Cough.*—This disease was more or less present all through the year; considering the carelessness about it, it would be strange if we were ever free from it. At the close of the Third and beginning of the Fourth Quarters it was almost epidemic in the East Sub-District, and was prevalent to the end of the year.

*Influenza.*—It is difficult to ascertain what the exact prevalence of this disease is; but apparently it was scarcely altogether absent during the year, and was very prevalent during March, declining through April. The type was apparently not a very fatal one, but it contributed heavily to our mortality during the first half of the year. I have already mentioned my belief that the dryness and consequent dust may have been conducive to its presence, and no doubt the severe frost and subsequent great variations in temperature during the first half year may have increased the fatality of the disease.

*Diarrhœa.*—This is really the most important disease we have to consider, first, because of its fatality, which exceeds that of all the other zymotics together; second, because it is peculiarly an index of the insanitary condition of towns; the excess of the town mortality over the country being chiefly due to Diarrhœa.

The Annual deaths from Diarrhœa since 1875 have been—

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1875 | 1876 | 1877 | 1878 | 1879 | 1880 | 1881 | 1882 | 1883 | 1884 | 1885 |
| 96 | 105 | 59 | 93 | 48 | 111 | 46 | 87 | 56 | 140 | 50 |
| 1886 | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | |
| 149 | 105 | 60 | 84 | 68 | 105 | 55 | 161 | 62 | 135 | |

Excepting 1875-6 and 1886-7 there has been a regular alternation of higher and lower fatalities, this was probably coincident with hotter and cooler summers. Inasmuch as deaths from this same cause are registered under several other terms and entered under the corresponding headings, not only does the return of deaths from Diarrhœa give an incorrect idea of the actual prevalence of the disease so called, but the returns under the heading Zymotic Disease are also vitiated. For Diarrhœa is classed as a Zymotic, but the other headings, such as Enteritis, Gastro-Enteric Catarrh, &c., although in most instances they mean the same condition, are classed as Local Diseases. All these terms are included in Table 4, under the heading Diarrhœal Diseases; and this Table gives the most correct idea of the prevalence of the disease in question. This gives the deaths for the year as 255 instead of 135, as in Table 9.

The heaviest previous annual Diarrhœa return was 161 deaths in 1893. On turning to Table 4 in that year's report, it appears that the Diarrhœal Diseases caused only 227 deaths; so that the fatality in 1895 was really much heavier, though not appearing so in Table 9. Heat is certainly the main factor, but how it acts is not yet ascertained. The theory has been advanced that it is when the 4ft. deep ground temperature reaches 56° Diarrhœa becomes epidemic. Our observatory is in the West Park, in a situation certainly much cooler than an average situation in the town would be, so that probably 55° 4ft. earth temperature there would be equivalent to 56° in the town. Our returns of *Diarrhœal* deaths since 1890, and the weekly means of the 4ft. earth temperature have been as follows; the figures in the columns after the second are the numbers of weeks the temperature in question reached to or above the degree at the head of the column without reaching the next degree.

| | Deaths. | 55° | 56° | 57° | 58° |
|---|---|---|---|---|---|
| 1890 | 87 | 3 | 3 | 6 | — |
| 1891 | 120 | 3 | — | — | — |
| 1892 | 67 | 3 | — | — | — |
| 1893 | 227 | 3 | 5 | 4 | 1 |
| 1894 | 99 | 8 | 2 | — | — |
| 1895 | 255 | 4 | 10 | — | — |

These figures show some relation between the temperature and the deaths, excepting in 1891. In the 1893 Report an even more marked relation was shown between the 1ft. earth temperature and the deaths; 1891 being again the exception.

The following weekly figures show a definite connection with temperature :—

1893.

| Week ending. | | Deaths. | Temp. 1ft. | Temp. 4ft. |
|---|---|---|---|---|
| June | 17 | 3 | 59·1 | 52·7 |
| | 24 | 3 | 63·3 | 53·8 |
| July | 1 | 5 | 60·4 | 54·5 |
| | 8 | 15 | 63·3 | 55·1 |
| | 15 | 20 | 61·7 | 55·9 |
| | 22 | 25 | 62·0 | 56·0 |
| | 29 | 17 | 62·6 | 56·3 |
| August | 5 | 19 | 62·2 | 56·7 |
| | 12 | 15 | 63·1 | 56·8 |
| | 19 | 10 | 66·6 | 57·4 |
| | 26 | 13 | 62·7 | 58·2 |
| Sept. | 2 | 14 | 60·0 | 57·8 |
| | 9 | 10 | 60·5 | 57·4 |
| | 16 | 9 | 56·6 | 57·1 |
| | 23 | 6 | 55·9 | 56·5 |
| | 30 | 5 | 53·6 | 55·7 |
| Oct. | 7 | 2 | 51·7 | 54·8 |
| | 14 | 4 | 51·0 | 53·9 |
| | 21 | 1 | 53·5 | 53·5 |

1895.

| Week ending. | | Deaths. | Temp. 1ft. | Temp. 4f. |
|---|---|---|---|---|
| June | 15 | — | 60·8 | 52·4 |
| | 22 | 2 | 59·1 | 53·3 |
| | 29 | 5 | 63·5 | 53·8 |
| July | 6 | 9 | 60·6 | 54·7 |
| | 13 | 13 | 63·3 | 55·2 |
| | 20 | 14 | 60·7 | 55·8 |
| | 27 | 16 | 60·6 | 55·8 |
| August | 3 | 16 | 60·1 | 56·1 |
| | 10 | 23 | 59·3 | 56·0 |
| | 17 | 16 | 59·7 | 56·0 |
| | 24 | 14 | 62·4 | 56·4 |
| | 31 | 10 | 59·3 | 56·8 |
| Sept. | 7 | 19 | 59·5 | 56·8 |
| | 14 | 13 | 58·6 | 56·8 |
| | 21 | 19 | 56·5 | 56·5 |
| | 28 | 9 | 56·3 | 56·0 |
| Oct. | 5 | 3 | 54·9 | 56·0 |
| | 12 | 12 | 50·9 | 55·2 |
| | 19 | 7 | 49·1 | 54·1 |

At least a fortnight should be allowed for the incubation and duration of illness, and the delay in registering a death ; so that the deaths should be compared with the temperatures of two weeks before. It seems to me that the relation in these Tables is certainly more between the 1ft. temp. and the deaths than with the 4ft. This is shown especially in the rapid fall in the deaths in 1893, which corresponds much more with the fall in 1ft. temp. than with the gradual lowering of the 4ft. Of course the deaths, both as regards date and diagnosis, are only a rough approximation to accuracy, but the epidemics have been so severe that the figures are worth recording as a contribution to our small knowledge of the subject. It is worth noticing that though the highest temperatures in 1893 have greatly exceeded those of 1895, still in the latter year the temperature kept up for a longer period, and the corresponding longer duration of the Diarrhœa epidemic accounts for the excess of 95 over 93.

## BOROUGH HOSPITAL.

The Quarterly numbers dealt with have been as follows :—

| Quarters. | Remaining in from previous Quarter. | Admitted. | | Total Discharged | | Died. | | Average No. of days in of the cases admitted. | Average daily No. of Patients in ; Approx |
|---|---|---|---|---|---|---|---|---|---|
| | | Scarlet Fever. | Small-Pox. | Scarlet Fever. | Small-Pox. | Scarlet Fever. | Small-Pox. | | |
| First ... | 133 | 155*a* | 3 | 217 | 10 | 11 | ... | 43·1 | 75 |
| Second .. | 64 | 75*a* | 4 | 100 | 4 | 2 | .. | 47·8 | 42 |
| Third ... | 39 | 130*b* | ... | 110 | ... | 6 | ... | 44·5 | 64 |
| Fourth .. | 59 | 95 | .. | 93 | ... | 4 | ... | 47·1 | 50 |
| Year ... | 133 | 455 | 7 | 520 | 14 | 23 | ... | 45 1 | 53 |

(*a*) 1 from Tettenhall.
(*b*) 7 from Tettenhall

Leaving 61 cases of Scarlet Fever in the Hospital at the close of the year.

The particulars of the seven Small-Pox cases have been already given.

The following are the summaries of the cases admitted in each Quarter as Scarlet Fever :—

*First Quarter.*—155 cases admitted as Scarlet Fever: 12 of these had no certain signs of Scarlet Fever when admitted. 5 of these proved to be Scarlet Fever. 7 were not; of these seven 4 were discharged when it became evident that they were not Scarlet Fever; the other 3 took Scarlet Fever before this, 6, 9, and 17 days after admission; one was fatal.

Thus 151 actual cases of Scarlet Fever were treated. Of these 10 were fatal; the particulars were:—A, 2 years old, Nephritis, 11 days in. B, $1\frac{3}{4}$ years old, Cellulitis of Perineum, 59 days in. C, 2 years old, severity of attack, toxæmia, 5 days in. D, 7 years old, Nephritis, Purpura, hæmorrhage, 21 days in. E, 6 years old, naso-pharyngeal ulceration, toxæmia, 24 days in. F, 4 years old, secondary throat (? Diphtheria), 31 days in. G, $1\frac{1}{2}$ years old, severity of attack, 1 day in. H, 4 years old, severity of attack, 4 days in. I, 4 years old, severity of attack, 2 days in. J, 5 months old, pyæmia, 19 days in.

There were 13 very severe and 9 severe cases.

Otorrhœa occurred in 14 cases. Rhinitis in 10 cases. Albuminurea in 4. Adenitis in 5. Suppuration in 2. 3 cases were found to have Whooping Cough when admitted, one case developed it 2 weeks after admission. Secondary throats, probably most of them Diphtheritic occurred in eight cases—A, 15 days after admission. B, 10 days. C, 26 days; tracheotomy, antitoxin. D, 23 days. E, 29 days, fatal in 2 days. F, 25 days. G, 21 days. H, 20 days, tracheotomy, antitoxin. The dates at which these throats occurred were—A, January 31st. B, February 2nd. D, March 14th. C, March 16th. E, F, and G, April 3rd. H, April 19th. It was a most fortunate circumstance that only one (E) was fatal. Another case discharged apparently perfectly well on April 2nd was admitted into the General Hospital with Diphtheria on April 12th.

*Second Quarter.*—75 cases admitted as Scarlet Fever. 9 of these had no certain signs when admitted. 6 of these ultimately proved to be Scarlet Fever. 1 was a case of Typhoid Fever; 1 a case of Influenza; 1 had had Scarlet Fever before, now apparently had some simple feverish attack; these 3 went out well. Thus only 72 cases of Scarlet Fever were treated. Only one died, an infant of 8 months, in a very weakly condition from prolonged Diarrhœa, also had severe naso-pharyngeal mischief; the Diarrhœa recurred, and proved fatal, 18 days in. 4 cases were very severe; 13 were severe. Otorrhœa occurred in 7 cases. Rhinitis in 7. Adenitis in 5.

Suppuration in 3. Albuminurea in 2. Impetigo in 3. Iritis in 1. 1 case was found to have Whooping Cough one week after admission. 3 cases had light attacks of Influenza (apparently contracted from the case mentioned above as having been admitted with Influenza). 1 case was found to have Ringworm. 2 cases had severe secondary throats, one Diphtheria, the other probably so. The first had a slight Catarrhal attack (query Influenza) 24 days after admission, 27 days later, on May 24th, he had Diphtheria (bacillus not found but subsequent paralysis) antitoxin, recovery. The second case had an indefinite severe throat on May 21st, four weeks after admission. Besides these another case discharged, apparently perfectly well on June 27th, was taken ill on June 29th with severe Diphtheria. And another, discharged well on July 16th, 54 days in, having been delayed by a catarrhal attack (? Influenza), ailed a few days after return home, and died July 21st, father said of Laryngitis, certified as "Scarlet Fever."

*Third Quarter.*—130 cases admitted as Scarlet Fever. 17 of these had no definite signs when admitted. 16 of these subsequently proved to be Scarlet Fever. 1 had a fresh rash six days after admission, peeled freely later, peeling complete 53 days after first illness, 42 days after second. Besides this case 4 others that had apparently undoubted signs of Scarlet Fever when admitted, had rashes later; A, 24 days after admission, rash same as Scarlet Fever. B, hands peeling freely after reputed Scarlet Fever when admitted, 6 days later vivid rash, peeling finished 36 days after second rash. C, 40 days after admission (*when still peeling*) had rash, temperature, and sore throat; no further peeling. D, 18 days after admission sickness and rash, no sore throat; peeling complete 47 days after first illness. Of the 130 cases treated, 7 were fatal. A, aged 7, severe naso-pharyngeal mischief; toxæmia; 5 days in. B, 2 years old, secondary severe throat (? Diphtheria); toxæmia; died in 24 hours; 37 days in. C, 2 years old; severe naso-pharyngeal mischief 16 days after admission, 2 days obscure measles-like rash; died next day; 19 days in. D, 4 years old; toxæmia and Diarrhœa; 5 days in. E, 1½ years old; Measles, Laryngitis; died in 3 days; 40 days in. F, 3 years old; Measles, Laryngitis, Pneumonia; died in 9 days; 52 days in.

G, $1\frac{7}{12}$ years old; Measles, Laryngitis, Bronchitis; died in 2 days; 23 days in. 10 cases were very severe, and 26 severe. 9 cases had Otorrhœa. 8 Rhinitis. 8 Adenitis. 3 Suppuration. 3 Rheumatism. 2 Albuminurea (1 very bad). 1 Cellulitis of face. 4 cases had exceptionally severe naso-pharyngeal mischief at 2, 9, 3, and 16 days after admission, the first and last of these were amongst our fatalities. 6 cases had severe secondary throats (? Diphtheria); 36 days after admission (fatal case); 10 days after admission; 36 days; 24 days; 13 days; 31 days.

Our most serious complication was an outbreak of Measles, which was then rather prevalent in the town; 7 cases were attacked, and 4 of these, all of whom were recovering from Scarlet Fever, proved fatal. The first case was on August 22nd, had been 16 days in (fatal); next on September 14th, had been then 17 days in; September 15th, had been 35 days in; September 16th, 38 days in; September 19th, 38 days in (fatal); September 27th, 21 days in (fatal); October 1st, 43 days in (fatal).

Thus we see of the seven deaths only two were due to Scarlet Fever alone; one being due to probable Diphtheria; and four to Measles.

Moreover, the following occurred after patients were discharged apparently quite well. R, discharged September 3rd, said to have Measles some time later at home. S, discharged September 18th, taken ill eleven days after (September 29th) and died later of "Measles and Whooping Cough"; and on October 5th, three others in the house had Diphtheria. On September 26th, four cases were discharged, T, Measles, 3 days after. U, Measles and bad throat (needing tracheotomy) 4 days after return home. V, three days after return another child had Diphtheria (but there had been two cases here before). W, Measles 10 days after return home (proved fatal).

*Fourth Quarter.*—95 cases admitted as Scarlet Fever. 24 cases had indefinite signs when admitted; 18 of those ultimately proved to be Scarlet Fever; 2 (sisters) were Measles; one took Scarlet Fever 18, and another 20 days after admission (the latter was peeling most suspiciously when admitted); another two went out well when it became evident that they had not got the Fever. One of these last was one of our own nurses whom I had warded because of a severe throat and suspicious rash. Thus 91 cases of Scarlet Fever were treated. 4 were fatal. A, 4 years old, Nephritis and uræmia, 46 days in. B, 2¾ years old, Measles and Pneumonia, died in 9 days; 65 days in. C, 4 years old, severe naso-pharyngitis, toxæmia, 15 days in. D, 9 months old, specific disease, 16 days in. 9 cases were very severe, and 17 were severe. 5 cases had otorrhœa; 5 Rhinitis; 4 adenitis; 6 had skin diseases (eczema or impetigo); 3 Rheumatism; 6 Nephritis (one admitted with) one was fatal; 1 Iritis; 1 Pneumonia; 1 Bronchitis; 1 Whooping Cough. There were only three cases of secondary throat; 1 on November 17th, 40 days after admission; 1 on November 24th, 38 days after admission (later had fatal Nephritis); 1 on December 13th, 14 days after admission. Besides the two cases that were found to have had Measles on admission, three cases occurred; on January 7th, 8th, and 9th, 1896; 42, 16, and 56 days after admission; the last case was fatal. Another child discharged well on January 7th, had Measles shortly after returning home. There was Measles since December 12th in the home of the child who had Measles on January 7th.

During the year, 15 cases were attended by their own doctors; six doctors attending.

The two points in the above Summary which mainly require comment are, first, the number and gravity of the cases of other diseases which occurred amongst our Scarlet Fever patients; second, the number of cases admitted which proved not to be Scarlet Fever.

There were 444 cases of Scarlet Fever actually treated, of these, 22 died, 4·9%; but 2 of these deaths were from Diphtheria and 5 from Measles, all of which occurred in cases practically recovering; without these the mortality would have been only 3·3%. Both Diphtheria and Measles are especially fatal when attacking Scarlet Fever cases. It is difficult to be sure about the diagnosis of Diphtheria (even when aided by Bacteriology). In the year, we had 19 Secondary Throats, probably most Diphtheritic, we were very fortunate in only losing two of these. We had 10 cases of Measles, and of these, 5 were fatal.

Moreover these figures do not represent the total amount of disaster. In the First Quarter, a child had Diphtheria 10 days after discharge; probably contracted before going out. In the Second Quarter, one case had Diphtheria two days after discharge, and the other case mentioned I suspect was Diphtheria too. In the Third Quarter, five cases had Measles after going home, one of these had Diphtheria too, and in the house of another, three cases of Diphtheria occurred, but our case was said to have Measles only. In the Fourth Quarter, one child had Measles shortly after returning home.

Of course there is some difficulty in getting accurate statistics of cases after discharge, but I believe I have had information of everything serious. The prevention of such secondary infection is a very difficult matter; as regards Diphtheria, with such a prevalence of it in the Borough, we may have had cases admitted that had no symptoms whatever of it, and yet contained the germs in their throats; or cases of mild unsuspected Diphtheria may have been admitted, either actually with Scarlet Fever, or amongst those cases mistaken for Scarlet Fever. In no case could we trace any definite source of Diphtheria infection, although the dates at which some of the cases occurred indicated such; for intance, three cases occurred on April 3rd; cases on May 21st and 23rd; these would seem to be due to two definite infections. Most of the cases were separated by rather long intervals. As each case arose it was at once separated from the other patients; either the small wards in the Pavilion, or the wooden wards being used.

Measles is another grave difficulty, and we have several times had it in our wards; at one time, before we had any facility for separation, with terrible results. The incubation period of Measles lasting from 2 to 3 weeks, during at least some of which the patient, although devoid of signs of illness, may convey infection, renders it a difficult disease to deal with. On August 22nd, case 295 (in Hospital Register) was taken ill with violent catarrhal symptoms, being only 16 days in Hospital, died in two days, Measles rash just coming out. This case may have been infected before admission. Case 276 went home on September 3rd, had Measles soon after. Cases occurred in the wards on 14th, 15th, 16th, 19th, and 27th of September, and on October 1st; also in patients after discharge on September 29th. 2 cases on September 30th and October 4th one case each. There was pretty evidently a succession of infection causing these cases; each of our cases was separated at once on detection, but of course mischief may have been done before that. This terminated that outbreak. On December 18th, two sisters were admitted, with very indefinite signs, there was history of definite illness, but I could not get particulars (the children were only aged one and two years). There was no peeling, and subsequent information convinced me these children had had Measles; they were then separated, and discharged after 24 days, on January 11th. But three cases of Measles broke out in the wards on January 7th, 8th, and 9th, the cases having been 42, 16, and 56 days in Hospital; the second of these may have been infected before admission. Further, a case discharged on January 7th had Measles shortly after. It is evident that none of our cases of secondary illness could have been avoided by any practicable precaution. Wherever any number of children are brought together the same disasters occur; in this we are like the Elementary Schools, except that our children, through recent illness, are more ready victims. In neither case will it be maintained that the good does not far exceed the accidental evil.

Another matter of great importance is the admission into our wards of cases not actually Scarlet Fever, who are therefore liable to, and sometimes do, contract the disease. The following gives our experience for each of the Quarters:—

| Quarters. | Total Cases | Indefinite on Admission | Proved Scarlet Fever. | Went out safe. | Caught Scarlet Fever. | Died. |
|---|---|---|---|---|---|---|
| First... ... | 155 | 12 | 5 | 4 | 3 | 1 |
| Second ... | 75 | 9 | 6 | 3 | ... | ... |
| Third ... | 130 | 17 | 16 | ... | 1 | ... |
| Fourth ... | 95 | 24 | 18 | 4 | 2 | ... |
| Year... ... | 455 | 62 | 45 | 11 | 6 | 1 |

There must always be a certain proportion of cases that at the time of admission have no definite signs of Scarlet Fever on them; for as from 24 to 48 hours will have elapsed since the doctor who reported the case saw it, the signs seen by him may have disappeared. Of course in this case no possible opinion can be pronounced on the case, the report of the doctor who saw the case must be relied on. And the fact that out of 455 cases only 17 proved not to be Scarlet Fever, shows that such opinion is a reliable one. The errors in the first two Quarters were, I am confident, due to the prevalence of Influenza. Many cases of this disease had rash and sore throat, and such would be very puzzling to deal with. In the last Quarter the main cause of error was, I believe, the then prevalent Measles; in some obscure cases of this disease there is much difficulty in distinguishing from Scarlet Fever.

A very exaggerated idea has prevailed as to the amount of erroneous cases we have had admitted, and very extravagent suggestions have been made. There are only two worth considering, 1st, that *every* case should be seen by a second doctor before admission, 2nd, that all uncertain cases should be admitted into a quarantine ward, and for this object there should be a resident doctor to examine all cases before actual admission. The first is scarcely worth serious consideration, it would entail great additional labour and expense, would be a slur on the doctor who had reported the case, and would cause a most deplorable friction between the Health Department and the Medical Profession. Such a second opinion would have been absolutely useless in 438 out of 455 cases in the year, and in 45 cases it would probably have resulted in real Scarlet Fever cases being retained at home, spreading infection, and causing far worse results than our 6 cases of Scarlet Fever and one death.

The idea of a resident doctor and a quarantine ward is a more plausible one, but it is also erroneous. It would be a very invidious thing to appoint any doctor to act a critic on the profession in the town, certainly no one should be so appointed except a man of high repute and standing; and it would be as absurd as impossible to appoint such a man to a position where nine-tenths or more of his time would be absolutely unoccupied. In times of high pressure the total medical attendance required at our Borough Hospital is little more than an hour daily, as an average it is less than half this. For, as is seen by all our reports, it is only a small proportion of cases that are really ill; the great majority are detained not because of illness but because of infection. Of course it would be quite different if we had Blocks for Diphtheria and Typhoid Fever, as well as Scarlet Fever.

Moreover, the conception of a Quarantine Ward is an error; such a Ward would be a most useful adjunct to the Hospital for the reception of cases considered doubtful by the doctors who reported them and whose surroundings rendered their removal expedient; but it would be of very slight use for cases reported as certain, and only appearing dubious on admission. For the latter would be nearly all Scarlet Fever cases, and the few who were not would run almost as great a risk in the Ward with them and attended by the same nurses as if they were in the General Wards. As an illustration, we would have had 62 cases in the year in the Quarantine Ward, 45 of which were Scarlet Fever and only 17 not, and the proportion of errors this year is much higher than usual.

It must be remembered that we have *never admitted a case into our Scarlet Fever Wards which was reported as doubtful.* Such cases as a rule are left at home until certain signs arise, or in bad circumstances I have occasionally quarantined them in our wooden annexe.

The plain fact is that a certain amount of accident is inevitable in human affairs, and while fully allowing that no pains should be spared to reduce the amount, I must say that I do not think anything practicable could have been done to reduce the amount we have had. At the same time I do consider that the efficiency of our Hospital would be greatly increased by the addition of a Pavilion containing Quarantine Wards for suitable cases, and Separation Wards for the more perfect isolation of cases of secondary diseases occurring amongst our Scarlet Fever patients.

Another disaster to which we are liable is the conveyance of infection home by patients leaving the Hospital. This is now well recognized in connection with Infectious Hospitals, and the fresh cases so occurring are termed "return cases."

When Scarlatinal infection takes place the rash almost always appears in 3 or 4 days; it is rarely delayed beyond seven; now, as infection would probably take place very soon after the case came home, if the rash in the re-current case is delayed much over seven days, there is inherent probability that the infection was from some other source; *unless some lasting infective condition is found in the returned child.*

In twenty-two instances cases occurred after the return of a previous case from the Hospital. The interval between the return from the Hospital and the next illness was 39, 36, 31, 27, 26, 24, and 19 days in one instance each. In the instance of 36 days interval, the first case had been detained 78 days in the Hospital because of otorrhœa, this condition recurred shortly after the child's return home, and it may have caused the "return case"; but it is rather doubtful, considering the length of time that elapsed before the fresh attack. Infection would be most improbable in the other instances. There was 17 days interval in two instances, infection not probable in either. 15 days interval in one instance; the case from the Hospital had been 45 days in (49 ill), and *after return home* nasal discharge began; this may have caused infection. 14 days, one instance, no complication, infection improbable. 9 days interval, two instances; 1st, 48 days in (50 since illness began), no complications. 2nd, 40 days in (43 since illness), had minute traces of peeling on heels. 7 days interval, one instance, detained until 47 days after illness began, had slight sore behind ear after return home. 6 days, one instance, 49 days in (51 since illness began). 5 days, one instance, 42 days in Hospital, nose bled and discharged after return home. 4 days, two instances, 1st, 51 days in, slight sore at angle of mouth. 2nd, 42 days in, had nasal discharge the day after returning home. 3 days, four instances, 1st, 49 days in, minute traces of skin on heels when discharged. 2nd, 52 days in, had Rhinitis, but none after return home. 3rd, 39 days in (46 ill), day after return home had sickness and otorrhœa. 4th, 42 days in (45 since illness began). In only ten of the 22 cases is infection at all probable from the Hospital case. In several instances the possibly infectious complication only occurred *after* the case had gone home. In no case could any reasonable precaution have averted the occurrence.

*Disinfection.*—The Quarterly nnmbers of articles stoved have been 6,766; 2,840; 3,133; 3,415—16,154 in the year. Rooms in 459 houses have been fumigated with sulphur.

## METEOROLOGY

(See Table 3.)

*First Quarter.*—The temperature during the first week was low, there was constant, rather severe, frost at night; it fell steadily during the second week, night frost becoming very severe (lowest 12°, mean temperature for the week 24°·6) In the third week there was a rapid thaw (with much rain), the night temperature for the last five days just touching freezing. This continued to January 22nd, when the night frost became again severe, and on the 24th commenced a frost of over five weeks duration and of most exceptional severity. mean temperature for four weeks ending February 23rd was only 23°·3; the greatest severity was during the sixth and seventh weeks (ending February 9th and 16th); in the former the *mean maximum* temperature was 28°·0, the *mean* minimum 11°·6; in the seventh week the *mean maximum* was 31°·1, the *mean* minimum 12°·4. The hardest frost was on the morning of February 9th, 2°·5. The above temperatures are all air temperatures taken by shaded thermometers; the open temperature on the ground would have been several degrees more extreme. During the three weeks ending February 16th the maximum temperature during the day only rarely and for brief periods exceeded freezing point; so that there was practically no thaw. On the eighth week there were slight thaws during the days. On the ninth and tenth the days become comparatively mild, but frost was still constant at night; the mean temperature rose to 33°·3, and thaw was fairly steady. After this thaw was rapid, scarcely checked by two rather severe frosts on March 12th and 13th. The last actual frost was on March 18th, the days during the last three weeks were remarkably mild, the mean temperature of the twelfth week being 44°·2; the maximum reaching 60°·2 on March 21st. The one foot deep earth temperature was below 34°·0 from February 7th to March 5th inclusive, but never fell below 33°·2, this being the record from February 14th to the 17th. It is remarkable that this temperature was not lower, but the station at the Park lies very low, and is somewhat sheltered by adjacent shrubs Certainly in many other situations the freezing and bursting of water pipes has shown an intense frost penetration of much more than one foot.

The prevailing winds during the first week were Northerly; for the next six weeks they were Easterly, inclined to South-easterly; during the rest of the Quarter the tendency was Westerly, varying from North-west to South-west. The fourth week was stormy; the winds were high during the ninth and tenth weeks; the twelfth was very squally. On Sunday, March 24th, there was a very severe gale from the W.NW.; and at about 1-30 p.m. this became very excessive, amounting to a hurricane of quite unprecedented violence. Fortunately this only lasted from ten to fifteen minutes, but even in this time the damage done to property was enormous.

The Rainfall, 6·3 inches was rather low for the season.

Owing to the frost the wet bulb thermometer was dry at 9 a.m. for nearly five weeks, and as there was not time to wait to make the necessary observations we have no record of the humidity for that period, the average humidity for the rest of the Quarter was 86.

The Barometer was very high as a rule; it was low on the third and thirteenth weeks. Variations were extreme on the first, third, fifth, seventh, eleventh and thirteenth weeks.

*Second Quarter.*—The weather this Quarter was an extreme contrast to that during the last. The main features were high temperature, very low rainfall, and small amount of wind. The first week was rather cool, though fine, the second, mild and dry ; the mean temperature after this rose steadily, and during May and June was exceedingly high, both days and nights being frequently sultry. There were, however, during most of the Quarter, extreme variations of temperature, the wind being at times cold, and there being an occasional night frost ; while at the same time sun heat was intense, and the maximum temperature very high.

The Rainfall was only 3·57 inches. 1·49 inches of this fell on the week ending April 27th, which was very showery. There were thunder showers on May 30th ; and thunderstorms on June 26th and 29th. The rest of the rain fell in sudden, brief, rather heavy, and very local showers. The general lack of moisture was very great.

The Humidity was 75.

The prevailing winds were East and North-East, but there were constant variations to the West, and occasionally South-West. The last six weeks were exceptionally calm.

The Barometer ranged very high, for seven weeks the mean was over 30 inches (corrected). Variations were rather extreme, but almost always very gradual and steady.

*Third Quarter.*—During the whole Quarter the temperature was high ; at first there was a slight falling off from the extreme sultriness at the close of June, and the maximum (84°·2) reached on June 25th has not been exceeded since, but it was approached on September 24th (83°·2) ; the last week in this present Quarter was the hottest in the year (mean temp. for the week, (62°·5). The temperature during September has probably not been equalled at the season for half a century.

The prevailing winds were Westerly; during the last fortnight North-Easterly. There were gales on July 14th and 20th, and September 10th was stormy, but the amount of wind was as a rule very low; during the tenth, twelfth, and thirteenth weeks the total wind was exceptionally little ; the stillness of the atmosphere during the last two weeks was very remarkable, and greatly intensified the effects of the heat.

The Rainfall, 5·63 inches, was very moderate. There was heavy rain on July 18th; some heavy showers during the first week of August, and on August 25th, 26th, and 27th (there was a thunderstorm on August 27th). The rest of the rain fell in light scattered showers, which had little cleansing effect.

The Humidity was 76.

The Barometer was moderately high, with slow changes, seldom great. During the last fortnight it was very high and steady.

*Fourth Quarter.*—The exceptional heat of September ceased suddenly on October 2nd, when the weather became cool and showery, and the drop in the temperature was intensified by high winds. The mean temperatures for the weeks ending September 28th, October 5th, and October 12th, were 62°·5, 52°·1, and 47°·6, and the totals of wind (in miles) were 611, 1,386, and 1,311. There were sharp frosts on October 17th, and 18th, and during the last nine nights of that month; four very slight frosts in the third week of November; and moderate night frosts from the 7th to the 28th of December. The day temperature kept fairly high until December 19th; from then to the 28th the weather was very cold. There was continuous frost from the 24th to the 27th, but the maximum temperature in the shade was only once actually below freezing point (December 25th). The Quarter was, as regards actual temperature, very mild for the season; and it was as a rule fairly fine; but there were some very sudden and extreme changes.

The prevailing winds were Westerly; during the eight and ninth, twelfth and thirteenth weeks they were Easterly. The total amount of wind was (in contrast to the Third Quarter) very great; excepting the third, fourth, and fifth weeks, it was excessive all through the Quarter. The seventh, tenth, and thirteenth weeks were very stormy.

The Rainfall was 7·59 inches. Heavy rain fell during the first, sixth, and seventh weeks. There was some snow during the first week in December, and snow storms on December 24th.

Moderate showers were frequent, and the sixth, ninth, and eleventh weeks were rather foggy; more or less mist and damp were almost constant.

The Humidity was about 87.

In spite of the moderate temperature the weather was rather severely felt in consequence of the high winds, the moist atmosphere, and the rapid changes.

The mean height of the Barometer was rather below the average. Variations were frequent and extreme.

The total Rainfall for the year was only 23·09 inches.

## Explanatory Remarks on the Tables.

The Returns made by the Registrar for the East Sub-District include all deaths occurring in the General Hospital and Workhouse; many of these are from outside the Borough, a few are returned as "no home," the others are of persons from the East and West Sub-Districts. Throughout the Tables the few cases returned as "no homes" are included in the East figures; the deaths from outside the Borough are excluded altogther (except in the uncorrected figures in Table 8), and the deaths from the East and West are referred to their own Sub-Districts. Particulars of these deaths in the Hospital and Workhouse are given in Table 7. In Table 8 the comparison between the Sub-Districts in all years before 1884 is misleading, as the East deaths include many really belonging to the West; the second row of figures in each year since 1884 are the corrected returns, the first row (given to compare with former years) are the Returns as sent in by the Registrars.

Table 10 gives our comparison with the other 32 great towns. The third column in this Table does not give the actual death rates but the rates corrected for the age distribution of the populations. The death-rate varies in the different age decades, for instance, is very high under 5 years and over 60 years; comparatively low between 20 years and 40 years. Thus a district whose population consisted of persons under 5 years and over 60, with a death rate of 40, might be far healthier (as far as death-rate is an index of health) than a district whose population was between 20 and 40 years, with a death-rate of 10. In the third column in Table 10 the rates are what they would have been had the age distribution in each town been the same as in England and Wales, and are therefore a much more accurate comparison than the actual death rates.

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## VITAL STATISTICS.

The year 1895 has been one of rather heavy fatality throughout the country. The corrected death-rate for the 33 towns in 1894 was 19·59, in 1895 it was 22·33. The Wolverhampton returns are by far the worst I have had, yet our relative position as regards the great towns is rather better than last year (see page 47 of that Report). Seven of the 33 towns exceed our death-rate (see Table 10). Only three exceed our Zymotic rate. Measles, we are much below the average. Scarlet Fever, only one town heavier. Diphtheria, we are the highest. Whooping Cough, only three exceed us. Fever, exact average. Diarrhœa, we are rather above the average, but thirteen towns exceed us, and one is the same. Infantile mortality only four towns exceed us. Our death-rate exceeds the average by 3·18; our Zymotic-rate exceeds the average by only 1·39. The excess in our Zymotic-rate is due to Scarlet Fever, ·21; Diphtheria, ·63; Whooping Cough, ·25; Diarrhœa, ·36. The Scarlet Fever is due to the fact that we are still in the period of maximum prevalence, although declining from last year. Scarlet Fever is now so vigorously dealt with everywhere that differences from other towns would be probably rather due to natural variations than to greater or less care. The Diphtheria has already been alluded to. The Whooping Cough and Diarrhœa are at present scarcely under control.

When the Zymotics are deducted, our death-rate still exceeds the average by 1·78; so that there are other causes contributing more than Zymotics to our bad position. It is worth noticing in Table 10 that only two towns have higher birth-rates than Wolverhampton, and these two are first and second in both birth and death-rates. Last year only five towns had higher birth-rates.

The comparison of our death-rate with those of past years in Table 8 is at first sight a most alarming one, and would seem to indicate grave failure in our work. We have the highest death-rate recorded during 23 years, our Zymotic rate is only down for 12 years, 1895 is far the highest during that period. The West death-rate has been exceeded five times during the 23 years, but the Zymotic rate has never been approached in the 12 years. The East death-rate is by far the highest recorded, but the Zymotic rate was exceeded in 1884, and closely approached in 1886 and last year. Notice that in the East Sub-district although the Zymotic rate in 1884 exceeds that in 1895 by ·6, yet the total death-rate in 1895 exceeds that of 1884 by 2·8.

Table 9 shows some of the various contributants; we see there full average death returns from Measles, and Phthisis and Respiratory Diseases; Scarlet Fever, Whooping Cough, and Typhoid Fever considerably above the average; Diphtheria and Diarrhœa greatly above the average. Thus we see that none of the more serious causes of death are below the average, and several are coincidently above it.

Moreover, the fact mentioned before as to the various registrations of Diarrhœal Diseases should be considered. We have 129 deaths referred this year to Enteritis, as well as the 135 returned as Diarrhœa. When these are taken into account the Diarrhœal Diseases alone would explain the year's excess over the average deaths.

Referring again to Table 9, the deaths at all age periods are excessive this year, but those of children under one year much the most so.

The excess over the average is, for 60 years and upwards 50·9; under 1 year 174·3; from 1 year to 5 83·2. The high infant mortality is mainly due to Diarrhœal Disease, but other entries are also heavy this year, especially Convulsions, which caused 66 deaths. Then Influenza contributes 55 deaths to the Zymotic mortality.

All the above is an unfortunate but probably more or less accidental combination, and in no way justifies any conclusion about our general sanitary condition as regards progress or otherwise. It is not by comparing one year but series of years that any inferences can be drawn.

The difference between the East and West Sub-districts (see Table 8) which for the last two years had been the greatest recorded (8·6 and 8·7) is this year down to 7·6; and the Zymotic rates are actually equal.

The lessened difference in the death rates is due to the excess of Diphtheria in the West. This also equalises the Zymotic rates, but the equality is only apparent; in the East 58 deaths are returned as Diarrhœa, that is Zymotic; 81 as Enteritis not Zymotic; in the West 77 deaths are returned as Diarrhœa and only 28 as Enteritis; if these deaths were all registered under the same heading, the East Zymotic rate would much exceed the West.

Table 5 gives the detailed difference between the Sub-Districts. Birth-rate 5·9 higher in the East; a poorer population, marrying early. Deaths—over 60 years, 16 more in the West; greater number reaching old age in the more prosperous district; the difference would be more marked but for the greater number of feeble old persons dying of exposure in the East. Under 1 year, 107 more in the East, greater debility and less care in the poorer district, and more children. From 1—5 years, only 11 more in the East, element of care less marked after age of infant-rearing; also Diphtheria in West most fatal at this age. Whooping Cough 15 more in East. Diphtheria 26 more in the West. Diarrhœal Diseases (see Table 4) 33 more in the East—more children, more ignorance, less care. Phthisis 36 more in East, greater feebleness and exposure. Respiration 63 more in East; more exposure.

I must refer to pages 48 and 49 of the 1894 Report for comment on the above.

## SANITARY CONDITION

There is little to add to what I stated in the Report for 1894. In one particular, and that a very important one, I believe we have been retrograding for some few years. I have frequently insisted on the fact that the essential sanitary defect in a large town is dirt in one form or another; decaying vegetable refuse, stagnant foul water lying in ill-paved yards and courts, closets ill kept and fouled, corners used as urinals, foul accumulations, such as manure or pig-wash; all these things and the like tend to keep a condition of constant air impurity which, though possibly causing no immediate illness, yet causes a lowered condition of health, lessening not only the individual's own enjoyment of life but his power of working, and ultimately shortening life by lessening the power of resisting disease. This element of air impurity is especially serious in towns where the effect of wind in changing the atmosphere is a mere fraction of what it is in the open. Apart from our direct work in combating infectious disease (inquiring about, keeping registers of, and, when necessary, removing cases, disinfection, and detention from school) the most important part of all our work is that part of the Nuisance Inspection which deals with the above matters. The importance of it is apt to be overlooked, because it does not consist in doing any great thing, but merely in a continual worrying at people about apparent trifles, and in preventing the recurring tendency of things to go wrong. But I am quite confident that, apart from those effects of poverty which I spoke of in the 1894 Report, there is nothing which contributes so much to those inexplicable high death-rates from diseases of debility in the old and very young, which are indeed the essential element in the high death-rates of some of the towns. A high death-rate which I have already pointed out is not dependent on Zymotics merely.

This element of our work has been gradually getting more and more neglected from various reasons; mainly because of the enormous additional work in connection with infectious diseases, but also because of many new duties that have been lately thrown upon the Health Department. I made voluminous reports on this and obtained particulars from the other large towns, at first in December, 1894, and on several occasions through the year 1895. The Sub-Inspection Committee has had the matter in hand, and several tentative alterations have been made in our staff and arrangements. But unfortunately owing to the attention demanded by the Team Department from the Health Committee and the late Chairman, Alderman Major, and finally to the lamented death of the latter, matters were not brought to a conclusion as soon as they would otherwise have been. It was very difficult to arrange the work and the staff so as to efficiently deal with the many details, including several new departures, and not to unduly increase the staff. Towards the close of the year however, a well considered scheme was in hand, and it has since been adopted.

*Unwholesome Food.*—The following articles have been condemned and destroyed as unfit for food during the year. 5 carcases of beef; 6 calves; 2 sheep; 3 lambs; 16 pigs; 196 lbs. of pickled tongues; 280 lbs. of fish; 3 barrels of herrings; 231 lbs. of Brazil nuts.

# STATISTICAL SUMMARY, 1895.

| | East Sub-District. | | West Sub-District. | | Borough. | |
|---|---|---|---|---|---|---|
| **Area**—Acres | 828 | | 2,697 | | 3,525 | |
| **Population*** | 39,220 | | 46,706 | | 85,781 | |
| **Density**—No. of persons per acre | 47·3 | | 17·3 | | 24·3 | |
| **Inhabited Houses** | | | | | about 17,900 | |
| **Rateable Value**—Total exclusive of Government Property | | | | | £327,990 10s. 0d. | |
| **Marriages** | | | | | No. 758 | Rate 8·8 |
| | No. | Rate | No. | Rate | No. | Rate. |
| **Births** | 1,505 | 38·5 | 1,522 | 32·6 | 3,027 | 35·4 |
| **Deaths** | 1,106 | 28·2 | 963 | 20·6 | 2,069 | 24·2 |
| **Zymotic Deaths** | 202 | 5·1 | 235 | 5·0 | 437 | 5·1 |
| **Infantile Mortality** Deaths under 1 year per 1000 births | 254 | | 181 | | 217 | |

*Estimated to the middle of 1895, the Borough is not quite the sum of the Sub-Districts being estimated separately.

# Index of Tables.

No. 1.—Cases of Measles, Scarlet Fever, Diphtheria, and Typhoid Fever recorded during the year 1895.

,, 2.—Weekly Returns under the Infectious Diseases Notification Act, and prevalence of some other Diseases.

,, 3.—Weekly Meteorological Returns and Death-rate.

,, 4.—Weekly Returns of Deaths in the Sub-Districts.

,, 5.—Quarterly Births and Deaths in the Sub-Districts and Borough.

,, 6.—Deaths in the Sub-Districts during the year 1895, classified according to Ages and Diseases.

,, 7.—Deaths during the year 1895, classified according to Diseases, Ages, and Localities, and the proportion of Deaths which occurred in Public Institutions.

,, 8.—Deaths and Death-rates and Populations of the Sub-Districts and Borough for the past 23 years.

,, 9.—Eleven Years' Annual Returns of Deaths from various Diseases and at various Ages, and Death-rates and Births and Birth-rates in the Borough.

,, 9A.—Eleven Years' Quarterly ditto

,, 10.—Various Death-rates, &c., in the 33 great towns during the year 1895. (*From the Regtstrar General's Annual Summary.*)

(*See also Explanatory Remarks on the Tables on pages 34—35.*)

# TABLE No. 1

*Cases of Infectious Disease heard of in 1895.*

| | | East Sub-District, Population 39,220. | | | | | West Sub-District, Population 46,706. | | | | | Borough Population 85,781. | | | | | Totals. | | | Rate per 10,000 of Population. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Year | East Sub-District | West Sub-District | Borough | East Sub-District | West Sub-District | Borough |
| Small Pox ... | Under 5 years ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 | 4 | 7 | 0·7 | 0·8 | 0·8 |
| | 5 yrs. & upwards | 3 | ... | ... | ... | 3 | ... | 4 | ... | ... | 4 | 3 | 4 | ... | ... | 7 | | | | | | |
| Measles ... | Under 5 years ... | ... | 47 | 105 | 162 | 314 | 2 | 1 | 43 | 168 | 214 | 2 | 48 | 148 | 330 | 528 | 465 | 384 | 849 | 118·5 | 82·2 | 98·9 |
| | 5 yrs. & upwards | ... | 34 | 35 | 82 | 151 | ... | 1 | 32 | 137 | 170 | ... | 35 | 67 | 219 | 321 | | | | | | |
| Scarlet Fever | Under 5 years ... | 30 | 14 | 12 | 40 | 96 | 30 | 24 | 42 | 33 | 129 | 60 | 38 | 54 | 73 | 225 | 234 | 358 | 592 | 59·6 | 76·6 | 69·0 |
| | 5 yrs. & upwards | 66 | 22 | 28 | 22 | 138 | 63 | 30 | 84 | 52 | 229 | 129 | 52 | 112 | 74 | 367 | | | | | | |
| Diphtheria .. | Under 5 years ... | 6 | 4 | 5 | 16 | 31 | 3 | 32 | 12 | 27 | 74 | 9 | 36 | 17 | 43 | 105 | 88 | 220 | 308 | 22·4 | 46·1 | 35·9 |
| | 5 yrs. & upwards | 20 | 4 | 11 | 22 | 57 | 5 | 38 | 28 | 75 | 146 | 25 | 42 | 39 | 97 | 203 | | | | | | |
| Typhoid Fever | Under 5 years ... | 2 | ... | 2 | 3 | 7 | ... | ... | ... | 3 | 3 | 2 | ... | 2 | 6 | 10 | 78 | 56 | 134 | 19·8 | 11·9 | 15·6 |
| | 5 yrs. & upwards | 11 | 8 | 20 | 32 | 71 | 3 | 9 | 17 | 24 | 53 | 14 | 17 | 37 | 56 | 124 | | | | | | |

# TABLE No. 2.

*WEEKLY RETURNS under the Infectious Diseases Notification Act, and prevalence of certain other diseases.*

A few cases x  Prevalent xx  Very Prevalent xxx

| 1895<br>Week ending | Small Pox | Scarlet Fever | Diphtheria | Typhoid Fever | Puerperal Fever | Measles | Whooping Cough | Pneumonia | Influenza |
|---|---|---|---|---|---|---|---|---|---|
| January 5th... | 2 | 11 | 1 | 1 | ... | ... | x | xx | ... |
| ,, 12th... | ... | 19 | 3 | 1 | ... | ... | x | xx | ... |
| ,, 19th... | 1 | 18 | 1 | 3 | ... | ... | x | xx | x |
| ,, 26th... | ... | 18 | 8 | 4 | ... | ... | x | xx | x |
| February 2nd... | ... | 17 | 3 | 1 | ... | ... | x | xx | x |
| ,, 9th... | ... | 12 | 3 | ... | ... | .. | x | xx | ... |
| ,, 16th... | ... | 13 | 5 | 1 | 1 | ... | x | xx | ... |
| ,, 23rd... | ... | 16 | 1 | 2 | 1 | ... | x | xx | x |
| March 2nd... | ... | 19 | 6 | ... | 1 | ... | x | xx | x |
| ,, 9th... | ... | 21 | 1 | 1 | ... | ... | x | xx | xx |
| ,, 16th... | ... | 6 | 1 | ... | ... | ... | x | xxx | xxx |
| ,, 23rd .. | ... | 15 | 1 | 1 | ... | ... | x | xxx | xxx |
| ,, 30th... | ... | 11 | ... | 1 | ... | ... | x | xxx | xxx |
| April 6th.. | ... | 9 | 3 | 1 | ... | ... | x | xxx | xxx |
| ,, 13th . | 4 | 3 | 1 | ... | ... | ... | x | xx | xx |
| ,, 20th . | ... | 7 | 5 | ... | ... | ... | x | xx | xx |
| ,, 27th... | ... | 4 | 2 | 1 | ... | ... | x | xx | xx |
| May 4th... | ... | 11 | 5 | 1 | 1 | ... | xx | xx | xx |
| ,, 11th... | ... | 5 | 7 | 1 | 1 | ... | xx | xx | xx |
| ,, 18th . | ... | 4 | 5 | 1 | ... | ... | x | x | x |
| ,, 25th.. | ... | 7 | 10 | 2 | ... | ... | x | x | x |
| June 1st... | ... | 6 | 8 | 1 | ... | ... | x | x | x |
| ,, 8th... | ... | 7 | 13 | 2 | ... | ... | x | xx | xx |
| ,, 15th... | ... | 6 | 11 | 1 | ... | x | x | xx | xx |
| ,, 22nd . | ... | 15 | 8 | 4 | ... | xx | x | x | x |
| ,, 29th .. | ... | 11 | 2 | ... | ... | xx | x | x | x |
| July 6th... | ... | 16 | 3 | ... | ... | xx | x | x | x |
| ,, 13th... | ... | 16 | 2 | 3 | ... | xx | x | x | x |
| ,, 20th... | ... | 15 | 3 | 3 | ... | xx | x | x | x |
| ,, 27th... | ... | 15 | 5 | 1 | ... | xx | x | x | x |
| August 3rd . | ... | 12 | 2 | 2 | ... | xx | xx | x | x |
| ,, 10th... | ... | 10 | 6 | 4 | ... | xx | x | x | x |
| ,, 17th . | ... | 12 | 6 | 5 | ... | xx | x | x | x |
| ,, 24th... | ... | 21 | 5 | 2 | ... | xx | x | x | x |
| ,, 31st .. | ... | 6 | 2 | 3 | ... | xx | x | x | x |
| September 7th... | .. | 12 | 9 | 7 | ... | xx | xx | x | x |
| ,, 14th... | ... | 10 | 5 | 8 | ... | xx | xx | x | x |
| ,, 21st... | ... | 5 | 3 | 1 | ... | xx | xx | x | x |
| ,, 28th... | ... | 15 | 5 | 1 | ... | xx | xx | x | ... |
| October 5th... | ... | 6 | 7 | 3 | ... | xx | xx | x | ... |
| ,, 12th... | ... | 8 | 9 | 14 | ... | xx | xx | x | ... |
| ,, 19th... | ... | 8 | 6 | 8 | ... | xx | xx | xx | x |
| ,, 26th .. | ... | 17 | 12 | 7 | ... | xx | xx | x | x |
| November 2nd... | ... | 13 | 10 | 4 | ... | xx | xx | xx | x |
| ,, 9th . | ... | 4 | 14 | 2 | ... | xx | xx | xx | x |
| ,, 16th... | ... | 12 | 14 | 4 | ... | xx | xx | x | x |
| ,, 23rd... | ... | 27 | 15 | 6 | ... | xx | xx | x | x |
| ,, 30th... | ... | 21 | 8 | 5 | ... | xx | xx | x | x |
| December 7th.. | ... | 9 | 12 | 2 | ... | xx | xx | x | x |
| ,, 14th... | ... | 16 | 13 | 1 | 1 | xx | xx | x | x |
| ,, 21st... | ... | 4 | 7 | 3 | ... | xx | xx | x | x |
| ,, 28th... | ... | 12 | 12 | 4 | 1 | xx | x | xx | x |
| YEAR ... | 7 | 613 | 309 | 134 | 7 | | | | |

Tables 1 and 2 do not tally ; 1 including a few cases not reported by Doctors, and 2 including some cases which ultimately proved incorrect.

# TABLE No. 3

*Weekly Meteorological Report, from observations taken at 9 a.m. daily.*

| Week ending | Barometer Reduced to 32° and Sea Level. | | Humidity. | Temperature. | | | | | Rain. | Wind. | | Death Rate per 1,000 per annum. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean | Range | | Max. | Min. | Mean. | Earth. | | | Prevailing Directions. | Total in Week. | |
| | | | | | | | 1ft. | 4ft. | | | | |
| 1895 | in. | in. | 0-100 | ° | ° | ° | ° | ° | in. | | Mls. | |
| January 5th .. | 29·784 | ·706 | 85 | 40·8 | 21·3 | 29·4 | 38·2 | 45·8 | ·20 | NW, N, N | 1385 | 24·3 |
| ,, 12th... | 29·812 | ·351 | 82 | 34·9 | 12·0 | 24·6 | 36·0 | 44·6 | ·56 | N, SE | 967 | 20·0 |
| ,, 19th... | 29·471 | ·927 | 97 | 43·9 | 23·5 | 34·7 | 36·4 | 43·6 | 1·66 | SE; SW | 1471 | 33·4 |
| ,, 26th... | 29·608 | ·514 | 84 | 42·2 | 16·5 | 32·3 | 36·6 | 42·8 | 1·21 | SE, NW | 1721 | 23·7 |
| February 2nd... | 30·076 | ·733 | ? | 35·1 | 12·8 | 23·2 | 34·5 | 42·2 | ·42 | SW, NE | 1409 | 22·5 |
| ,, 9th . | 30·027 | ·346 | ? | 35·2 | 2·5 | 19·5 | 34·1 | 41·5 | ... | SE | 1072 | 23·7 |
| ,, 16th... | 30·098 | ·728 | ? | 35·7 | 5·2 | 21·5 | 33·5 | 40·9 | .. | SE, E | 1254 | 26·1 |
| ,, 23rd... | 30·361 | .214 | ? | 42·3 | 15·2 | 29·1 | 33·4 | 40·3 | ·01 | NE, NW, NW | 630 | 29·8 |
| March 2nd . | 29·859 | ·245 | 78 | 46·2 | 23 6 | 33·6 | 33·8 | 39·8 | ·13 | NW | 1438 | 21·8 |
| ,, 9th... | 29·737 | ·361 | 89 | 44·8 | 17·7 | 33·1 | 34·6 | 39·4 | ·46 | NW, SW, S | 1401 | 30·4 |
| ,, 16th... | 29·909 | ·955 | 86 | 54·8 | 25·2 | 39·7 | 38·0 | 39·7 | ·30 | SW | 982 | 33·4 |
| ,, 23rd... | 29·916 | ·439 | 89 | 60·2 | 26·6 | 44·2 | 42·3 | 40·7 | ·48 | NW, SW | 1361 | 37·1 |
| ,, 30th . | 29·123 | ·549 | 86 | 53·0 | 32·1 | 40·7 | 42·9 | 42·1 | ·87 | SW, NW | 2147 | 37·7 |
| April 6th... | 29·846 | ·708 | 78 | 50·9 | 26·4 | 36·6 | 42·3 | 42·7 | ·24 | NE, W | 1444 | 25·5 |
| ,, 13th... | 29·966 | ·854 | 77 | 61·2 | 28·8 | 44·4 | 45·1 | 43·0 | ·01 | SW; NW, NE | 1385 | 24·9 |
| ,, 20th... | 29·919 | ·692 | 78 | 60·2 | 25·8 | 45·3 | 47·5 | 44·1 | ·41 | SE | 1570 | 22·5 |
| ,, 27th... | 29·609 | ·480 | 86 | 62·4 | 38·8 | 47·6 | 49·4 | 45·4 | 1·49 | SW. W, NE | 1616 | 27·3 |
| May 4th.. | 30·286 | ·521 | 70 | 63·1 | 31·8 | 46·9 | 49·9 | 46·0 | ·41 | NW | 1080 | 20·0 |
| ,, 11th . | 30·192 | ·409 | 64 | 70·9 | 33·2 | 53·1 | 53·8 | 47·2 | ·06 | SE | 1285 | 18·2 |
| ,, 18th... | 30·022 | ·602 | 71 | 72·5 | 32·5 | 50·9 | 56·1 | 48·7 | ·03 | N, NE | 1620 | 14 5 |
| ,, 25th... | 29·823 | ·275 | 77 | 65·9 | 34·1 | 49·1 | 52·8 | 49·3 | ·06 | NE | 686 | 17·0 |
| June 1st . | 30·034 | ·603 | 68 | 80·9 | 41·9 | 57·7 | 57·6 | 49·8 | ·09 | SW | 909 | 27·3 |
| ,, 8th . | 30·190 | ·522 | 75 | 76·8 | 41·1 | 56·0 | 59·3 | 51·1 | ·03 | E, NE | 957 | 22·5 |
| ,, 15th... | 30·062 | ·271 | 65 | 72·8 | 31·8 | 52·0 | 60·8 | 52·4 | ·18 | NE, NW | 996 | 15·8 |
| ,, 22nd . | 29·969 | ·585 | 62 | 76·8 | 35·8 | 53·4 | 59·1 | 53·3 | ... | N, SW | 771 | 13·3 |
| ,, 29th . | 30·109 | ·700 | 72 | 84·2 | 47·8 | 61·8 | 63·5 | 53·8 | ·56 | NW, SW | 945 | 17·6 |
| July 6th . | 29·902 | ·693 | 75 | 75·3 | 43·3 | 55·6 | 60·6 | 54·7 | ·74 | NW | 1109 | 19·4 |
| ,, 13th... | 29·930 | ·509 | 61 | 77·9 | 43·0 | 58·5 | 63·3 | 55·2 | ·35 | NW, SW | 1303 | 27·3 |
| ,, 20th .. | 29·744 | ·384 | 78 | 70·8 | 47·2 | 56·3 | 60·7 | 55·8 | ·87 | NW, W | 1309 | 23·7 |
| ,, 27th... | 29·660 | ·404 | 80 | 73·9 | 46·1 | 58·4 | 60·6 | 55·8 | ·83 | NW, SW | 1295 | 27·3 |
| August 3rd.. | 29·818 | ·545 | 72 | 68·8 | 41·1 | 54·3 | 60·1 | 56·1 | ·25 | SW | 908 | 27·9 |
| ,, 10th . | 29·615 | ·514 | 76 | 70·9 | 42·5 | 55·1 | 59·3 | 56·0 | 1·10 | NW. SW | 1186 | 31·0 |
| ,, 17th.. | 29·878 | ·746 | 77 | 76·8 | 47·2 | 58·8 | 59·7 | 56·0 | ·50 | SW | 960 | 29·1 |
| ,, 24th.. | 29·947 | ·293 | 74 | 77·1 | 47·5 | 61·6 | 62·4 | 56·4 | ·02 | SW | 859 | 24·9 |
| ,, 31st... | 30·021 | ·538 | 75 | 70·8 | 41·8 | 56·7 | 59·3 | 56·8 | ·53 | SW, NW | 1692 | 18·8 |
| September 7th... | 29·976 | ·212 | 80 | 77·7 | 44·4 | 58·9 | 59·5 | 56 8 | ·17 | SW | 826 | 37·1 |
| ,, 14th.. | 29·852 | ·568 | 79 | 81·7 | 39·6 | 57·1 | 58·6 | 56·8 | ·22 | W, NW | 1131 | 21·2 |
| ,, 21st . | 30·212 | ·363 | 85 | 75·9 | 39·1 | 54·4 | 56·5 | 56·5 | ·02 | SW, NE | 665 | 23·7 |
| ,, 28th... | 30·205 | ·180 | 82 | 83·2 | 35·0 | 62·5 | 56·3 | 56·0 | ·03 | SW, SE, NE | 611 | 26·1 |
| October 5th... | 29·690 | ·885 | 82 | 78·3 | 34·9 | 52·1 | 54·9 | 56·0 | 1·28 | SW | 1386 | 19·4 |
| ,, 12th... | 29·649 | ·726 | 85 | 56·9 | 37·0 | 47·6 | 50·9 | 55·2 | ·62 | NW, W | 1311 | 27·9 |
| ,, 19th . | 30·228 | ·560 | 85 | 60·6 | 25·2 | 44·7 | 49·1 | 54·1 | ·28 | SW, SW, NE | 659 | 20·0 |
| ,, 26th... | 29·775 | ·722 | ? | 51·9 | 23·5 | 36·7 | 43·8 | 52·9 | ·60 | NE, SW | 810 | 17·6 |
| November 2nd... | 29·971 | ·629 | 86 | 50·1 | 23·5 | 36·6 | 40·1 | 50 8 | ·08 | NW, SW | 960 | 21·2 |
| ,, 9th | 29·707 | ·604 | 91 | 55·9 | 31 8 | 44·7 | 44·8 | 49·5 | 1·14 | SE, W, SW | 1437 | 33·4 |
| ,, 16th... | 29·489 | ·779 | 85 | 59·8 | 35·8 | 45·9 | 45·0 | 49·5 | 1·06 | SW | 2320 | 23·1 |
| ,, 23rd... | 30·049 | ·489 | 89 | 53·3 | 30·0 | 42·2 | 43·5 | 49·1 | ·37 | SW, SE | 1779 | 23·1 |
| ,, 30th... | 29·967 | ·753 | 90 | 50·2 | 30·5 | 40·9 | 42·5 | 48·4 | ·61 | NE | 1832 | 20·0 |
| December 7th.. | 29·784 | ·710 | 83 | 54·2 | 28·1 | 41·3 | 41·9 | 47·9 | ·28 | SW, W, NW | 2375 | 20·6 |
| ,, 14th... | 29·782 | ·787 | 87 | 49·8 | 27·9 | 37·5 | 38·6 | 47·2 | ·72 | SW, NW | 1639 | 13·9 |
| ,, 21st... | 29·586 | ·995 | 90 | 44·4 | 21·2 | 34·3 | 38·3 | 46·1 | ·09 | SW, E | 1164 | 23·1 |
| ,, 28th... | 29·863 | ·811 | ? | 46·8 | 22·2 | 31·3 | 35·7 | 45·2 | ·46 | E | 2048 | 24·9 |

Total Rainfall in the year, 23·09 inches.

# TABLE No. 4.—Weekly Returns of Deaths in the Sub-Districts.

| | | Week ending | January. | | | | February. | | | | March. | | | | | April. | | | | May. | | | | June. | | | | | July. | | | | August. | | | | | September | | | | October. | | | | November. | | | | | December | | | | 1895. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 5 | 12 | 19 | 26 | 2 | 9 | 16 | 23 | 2 | 9 | 16 | 23 | 30 | 6 | 13 | 20 | 27 | 4 | 11 | 18 | 25 | 1 | 8 | 15 | 22 | 29 | 6 | 13 | 20 | 27 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 5 | 12 | 19 | 26 | 2 | 9 | 16 | 23 | 30 | 7 | 14 | 21 | 28 | Totals. |
| EAST SUB-DISTRICT. | MEASLES | Under 5 yrs. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | | ... | ... | ... | ... | ... | ... | | ... | ... | ... | | ... | 1 | ... | ... | 1 | | 1 | 1 | ... | ... | | 1 | ... | 2 | ... | 1 | 2 | 1 | | 2 | 2 | 1 | 2 | ... | 1 | 19 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | 1 | | 1 |
| | SCARLET FEVER | Under 5 yrs. | ... | 2 | 1 | 1 | 1 | ... | ... | 1 | 1 | 1 | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | ... | | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 14 |
| | | 5 & upwards | ... | 1 | ... | ... | | ... | ... | 1 | ... | ... | ... | ... | ... | | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | | 2 |
| | WHOOPING COUGH | Under 5 yrs. | 2 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | 1 | 1 | 1 | ... | | ... | 2 | | ... | ... | ... | ... | | 1 | ... | 1 | ... | ... | 1 | ... | 4 | 1 | 2 | 2 | 5 | 1 | ... | ... | 1 | 1 | 1 | ... | 2 | ... | ... | 1 | | 33 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | ... | ... | ... | ... | ... | | ... | ... | | ... | ... | ... | | ... | | | ... | ... | ... | ... | ... | ... | ... | ... | 1 | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 |
| | DIPHTHERIA | Under 5 yrs. | | 2 | | ... | ... | | 2 | | 1 | ... | ... | ... | ... | 1 | | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | | | ... | ... | 1 | ... | ... | | | ... | 1 | | ... | ... | | ... | 1 | 1 | 1 | ... | ... | ... | | ... | ... | ... | ... | 13 |
| | | 5 & upwards | 1 | ... | 1 | 1 | 1 | 2 | 1 | | ... | ... | ... | 1 | ... | 1 | ... | ... | 1 | ... | | ... | 1 | ... | | ... | ... | ... | | ... | ... | ... | ... | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | 1 | | 1 | 1 | ... | ... | ... | ... | ... | ... | 16 |
| | TYPHOID FEVER | Under 5 yrs. | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | | ... | ... | | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | | ... | ... | ... | ... | ... | ... | ... | 3 |
| | | 5 & upwards | ... | ... | ... | ... | 1 | ... | | ... | ... | ... | ... | ... | | | | ... | ... | | ... | | | ... | ... | | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | 1 | ... | 1 | ... | 1 | 7 |
| | DIARRHŒAL DISEASES | Under 5 yrs. | | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... | 1 | 1 | 1 | 2 | ... | 1 | 1 | ... | 1 | ... | ... | ... | 1 | ... | 1 | 5 | 1 | 2 | 8 | 8 | 8 | 10 | 6 | 6 | 5 | 9 | 7 | 12 | 5 | 2 | 11 | 4 | 2 | 3 | 6 | 2 | 1 | 1 | ... | 1 | ... | ... | 138 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 2 | ... | ... | ... | 1 | ... | 2 | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | 6 |
| | PHTHISIS | Under 5 yrs. | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | 1 | ... | 1 | 1 | ... | ... | 1 | 1 | 1 | ... | ... | 2 | ... | ... | 4 | ... | 1 | 2 | ... | 1 | ... | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 22 |
| | | 5 & upwards | ... | 1 | 2 | ... | 1 | ... | 3 | | ... | 1 | ... | 3 | 1 | 1 | ... | 1 | 1 | ... | 2 | ... | 1 | 1 | 2 | 1 | 5 | ... | 2 | ... | 1 | | 2 | 2 | 1 | 1 | 1 | ... | 1 | ... | 1 | 3 | 2 | ... | 2 | ... | ... | 1 | 3 | ... | ... | ... | ... | 1 | 51 |
| | RESPIRATORY DISEASES | Under 5 yrs. | 2 | 1 | 3 | ... | | 1 | 4 | 3 | | 3 | 5 | 3 | 5 | 2 | 4 | 1 | ... | 2 | 1 | 1 | 1 | 1 | ... | 2 | 2 | 2 | 1 | 1 | ... | ... | 1 | ... | ... | 4 | ... | 2 | ... | ... | 1 | 3 | ... | 1 | ... | 1 | 5 | 2 | 1 | 2 | 6 | 1 | 4 | 7 | 92 |
| | | 5 & upwards | 5 | 1 | 4 | 3 | 5 | 4 | 8 | 4 | 5 | 12 | 6 | 6 | 7 | 6 | 3 | 3 | 6 | 3 | 4 | 2 | 2 | 10 | 3 | 2 | ... | 1 | | 2 | 3 | 1 | 2 | 2 | 3 | 1 | 1 | 5 | 2 | 3 | ... | ... | ... | 2 | 1 | 3 | 4 | 1 | 2 | 2 | 1 | 1 | 3 | 1 | 161 |
| | ALL CAUSES | Under 5 yrs. | 11 | 10 | 11 | 9 | 6 | 9 | 10 | 12 | 5 | 11 | 11 | 11 | 10 | 12 | 10 | 10 | 7 | 6 | 6 | 4 | 2 | 10 | 9 | 6 | 7 | 9 | 3 | 8 | 13 | 18 | 18 | 18 | 14 | 16 | 6 | 21 | 12 | 17 | 16 | 13 | 24 | 8 | 8 | 11 | 17 | 10 | 11 | 12 | 11 | 8 | 11 | 18 | 565 |
| | | 60 & upwards | 8 | ... | 9 | 2 | 7 | 5 | 8 | 6 | 5 | 15 | 13 | 10 | 7 | 5 | 4 | 4 | 3 | 6 | 2 | 6 | 4 | 8 | 3 | 2 | 1 | 4 | 2 | 2 | 3 | 2 | 5 | 3 | 1 | 3 | 1 | 7 | 4 | 2 | 7 | 1 | 4 | 6 | 2 | 1 | 3 | 4 | 2 | 3 | 5 | | 3 | 3 | 226 |
| | | All Ages | 24 | 13 | 30 | 14 | 21 | 24 | 30 | 25 | 21 | 32 | 28 | 33 | 27 | 25 | 19 | 20 | 23 | 15 | 15 | 13 | 12 | 29 | 18 | 12 | 13 | 18 | 11 | 17 | 21 | 24 | 27 | 26 | 23 | 24 | 10 | 36 | 21 | 22 | 26 | 19 | 32 | 16 | 15 | 16 | 30 | 21 | 22 | 18 | 18 | 12 | 21 | 25 | 1106 |
| WEST SUB-DISTRICT. | MEASLES | Under 5 yrs. | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | | ... | ... | 1 | ... | ... | ... | 1 | 4 | 2 | 1 | 1 | 1 | 3 | 3 | 1 | ... | ... | ... | ... | 19 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | 1 |
| | SCARLET FEVER | Under 5 yrs. | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | 1 | ... | 1 | | | ... | 1 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | 1 | 15 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | 1 | ... | ... | ... | | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3 |
| | WHOOPING COUGH | Under 5 yrs. | ... | ... | ... | 2 | 1 | ... | ... | ... | ... | ... | ... | | 1 | ... | ... | 1 | 1 | 2 | ... | 1 | ... | ... | ... | 1 | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | | ... | 1 | ... | ... | ... | | 1 | | 2 | ... | 1 | 2 | ... | ... | ... | ... | ... | | 19 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | DIPHTHERIA | Under 5 yrs. | 1 | 1 | ... | ... | ... | 1 | ... | ... | ... | | | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | 1 | 2 | 3 | ... | 3 | ... | ... | ... | | 2 | ... | 1 | 1 | 1 | ... | 1 | 1 | ... | ... | ... | | ... | | 1 | 2 | 3 | | 1 | 4 | 1 | ... | ... | 33 |
| | | 5 & upwards | ... | ... | ... | 1 | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | | ... | 1 | ... | 2 | 3 | ... | ... | 1 | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | | ... | ... | 1 | ... | 1 | ... | 2 | 1 | ... | 1 | 1 | 1 | 1 | ... | ... | 1 | ... | 22 |
| | TYPHOID FEVER | Under 5 yrs. | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | 1 | ... | 1 | ... | | ... | 1 | ... | ... | 2 | ... | ... | 1 | ... | ... | ... | ... | 8 |
| | DIARRHŒAL DISEASES | Under 5 yrs. | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | 8 | 10 | 5 | 7 | 7 | 12 | 6 | 8 | 5 | 10 | 5 | 7 | 2 | 1 | 1 | 3 | 1 | 1 | ... | 1 | ... | ... | ... | 1 | ... | ... | 104 |
| | | 5 & upwards | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | | ... | 1 | 1 | 1 | | 1 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 7 |
| | PHTHISIS | Under 5 yrs. | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | | ... | ... | ... | ... | ... | ... | | ... | ... | ... | ... | ... | ... | ... | | ... | | ... | ... | ... | ... | ... | ... | ... | | ... | ... | 3 |
| | | 5 & upwards | ... | 1 | 1 | ... | ... | | 1 | ... | 1 | ... | ... | 1 | 5 | 1 | 2 | ... | 2 | 2 | ... | ... | ... | 1 | 1 | 2 | 1 | 1 | ... | 2 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | 1 | ... | 1 | ... | 1 | ... | ... | ... | 2 | 2 | 34 |
| | RESPIRATORY DISEASES | Under 5 yrs. | 2 | 4 | 1 | ... | 1 | 2 | ... | ... | 3 | 1 | 1 | 4 | 4 | 4 | ... | 4 | ... | 1 | ... | 1 | 1 | ... | 3 | 1 | 1 | 1 | 1 | 1 | 2 | ... | 1 | 2 | ... | ... | 1 | 1 | 3 | 1 | ... | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 1 | 2 | 4 | 2 | 74 |
| | | 5 & upwards | 3 | 4 | 6 | 6 | 1 | 2 | 3 | 9 | 2 | 5 | 8 | 6 | 6 | 4 | 4 | ... | 2 | 2 | 4 | 1 | 1 | 1 | ... | 1 | ... | 1 | 2 | ... | 2 | ... | 1 | 1 | 3 | 1 | 1 | ... | 2 | 1 | 1 | ... | 1 | 2 | 2 | 3 | 1 | ... | 2 | 1 | 1 | 1 | 1 | 4 | 116 |
| | ALL CAUSES | Under 5 yrs. | 7 | 9 | 6 | 9 | 7 | 7 | 1 | 5 | 8 | 7 | 8 | 8 | 9 | 7 | ... | 11 | 5 | 7 | 5 | 6 | 6 | 6 | 13 | 6 | 6 | 2 | 11 | 18 | 10 | 13 | 11 | 19 | 14 | 14 | 14 | 17 | 10 | 9 | 9 | 6 | 7 | 9 | 7 | 9 | 10 | 12 | 7 | 9 | 11 | 7 | 5 | 5 | 447 |
| | | 60 & upwards | 5 | 5 | 8 | 8 | 6 | 5 | 6 | 11 | 2 | 6 | 13 | 10 | 14 | 5 | 12 | 2 | 7 | 6 | 2 | 4 | 3 | 4 | 4 | 4 | ... | 6 | 4 | ... | 2 | 6 | 2 | 2 | 6 | 2 | 4 | 3 | 3 | 2 | 5 | 3 | 4 | 3 | 3 | 5 | 5 | 1 | 3 | 2 | 2 | 2 | 4 | 6 | 242 |
| | | All Ages | 16 | 20 | 25 | 25 | 16 | 15 | 13 | 24 | 15 | 18 | 27 | 28 | 35 | 17 | 22 | 17 | 22 | 18 | 15 | 11 | 16 | 16 | 19 | 14 | 9 | 11 | 21 | 28 | 18 | 21 | 19 | 25 | 25 | 17 | 21 | 25 | 14 | 17 | 17 | 13 | 14 | 17 | 14 | 19 | 25 | 17 | 16 | 15 | 16 | 11 | 17 | 16 | 963 |

# TABLE No. 5.—Quarterly Births and Deaths during 1895.

| | | East Sub-District, 39,220. | | | | | West Sub-District, 46,706. | | | | | Borough, 85,781. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | QUARTERS. | 1st | 2nd | 3rd | 4th | Year. | 1st | 2nd | 3rd | 4th | Year. | 1st | 2nd | 3rd | 4th | Year. |
| BIRTHS. | Males ... ... ... | 217 | 167 | 169 | 186 | 739 | 221 | 198 | 174 | 168 | 761 | 438 | 365 | 343 | 354 | 1500 |
| | Females ... ... ... | 200 | 209 | 164 | 193 | 766 | 218 | 171 | 198 | 174 | 761 | 418 | 380 | 362 | 367 | 1527 |
| | Total ... ... ... | 417 | 376 | 333 | 379 | 1505 | 439 | 369 | 372 | 342 | 1522 | 856 | 745 | 705 | 721 | 3027 |
| | Rate ... ... ... | 42·6 | 38·4 | 34·0 | 38·7 | 38·5 | 37·7 | 31·7 | 31·9 | 20·3 | 32·6 | 40·0 | 34·8 | 32·9 | 33·8 | 35·4 |
| DEATHS. | Males ... ... ... | 164 | 135 | 157 | 137 | 593 | 148 | 121 | 143 | 97 | 509 | 312 | 256 | 300 | 234 | 1102 |
| | Females ... ... ... | 157 | 97 | 131 | 128 | 513 | 130 | 86 | 125 | 113 | 454 | 287 | 183 | 256 | 241 | 967 |
| | Total ... ... ... | 321 | 232 | 288 | 265 | 1106 | 278 | 207 | 268 | 210 | 963 | 599 | 439 | 556 | 475 | 2069 |
| | Rate ... ... ... | 32·8 | 23·7 | 29·4 | 27·1 | 28·2 | 23·8 | 17·7 | 23·1 | 18·0 | 20·6 | 28·0 | 20·5 | 26·0 | 22·2 | 24·2 |
| | 60 years and upwards ... | 95 | 52 | 42 | 37 | 226 | 99 | 59 | 41 | 43 | 242 | 194 | 111 | 83 | 80 | 468 |
| | Under 1 year ... ... | 83 | 70 | 134 | 96 | 383 | 55 | 43 | 126 | 52 | 276 | 138 | 113 | 260 | 148 | 659 |
| | 1—5 years... ... ... | 42 | 28 | 46 | 66 | 182 | 37 | 37 | 43 | 54 | 171 | 79 | 65 | 89 | 120 | 353 |
| | Zymotics ... ... ... | 47 | 25 | 74 | 56 | 202 | 32 | 44 | 100 | 59 | 235 | 79 | 69 | 174 | 115 | 437 |
| | Rate ... ... ... | 4·8 | 2·5 | 7·5 | 5·7 | 5·1 | 2·7 | 3·7 | 8·5 | 5·0 | 5·0 | 3·6 | 3·2 | 8·1 | 5·3 | 5·1 |
| | Small Pox ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Measles ... ... ... | ... | ... | 5 | 15 | 20 | ... | ... | 2 | 18 | 20 | ... | ... | 7 | 33 | 40 |
| | Scarlet Fever ... ... | 11 | 2 | 1 | 2 | 16 | 6 | ... | 7 | 5 | 18 | 17 | 2 | 8 | 7 | 34 |
| | Whooping Cough ... ... | 4 | 5 | 12 | 13 | 34 | 4 | 7 | 2 | 6 | 19 | 8 | 12 | 14 | 19 | 53 |
| | Diphtheria... ... ... | 13 | 6 | 4 | 6 | 29 | 6 | 18 | 10 | 21 | 55 | 19 | 24 | 14 | 27 | 84 |
| | Typhoid Fever ... ... | 3 | ... | 1 | 6 | 10 | ... | ... | 4 | 4 | 8 | 3 | ... | 5 | 10 | 18 |
| | Influenza ... ... ... | 10 | 11 | 5 | ... | 26 | 12 | 16 | 1 | ... | 29 | 22 | 27 | 6 | ... | 55 |
| | Diarrhœa ... ... | 2 | 1 | 41 | 14 | 58 | ... | ... | 72 | 5 | 77 | 2 | 1 | 113 | 19 | 135 |
| | Phthisis ... ... ... | 15 | 22 | 22 | 14 | 73 | 12 | 14 | 4 | 7 | 37 | 27 | 36 | 26 | 21 | 110 |
| | Respiratory Diseases ... | 100 | 64 | 35 | 54 | 253 | 84 | 38 | 28 | 40 | 190 | 184 | 102 | 63 | 94 | 443 |
| | Uncertified ... ... | 1 | ... | 1 | 2 | 4 | 1 | 1 | 5 | ... | 7 | 2 | 1 | 6 | 2 | 11 |
| | Inquests ... ... ... | 22 | 16 | 13 | 15 | 66 | 16 | 14 | 7 | 12 | 49 | 38 | 30 | 20 | 27 | 115 |
| Deaths in Public Institutions in the East Sub-District. | Hospital ... .. ... ... ... | | | | | | | | | | | 53 | 38 | 43 | 42 | 176 |
| | Workhouse ... ... ... ... ... | | | | | | | | | | | 78 | 55 | 41 | 31 | 205 |
| | From Outside the Borough ... ... ... | | | | | | | | | | | 41 | 32 | 34 | 31 | 138 |
| | From the West Sub-District... ... ... | | | | | | | | | | | 30 | 27 | 20 | 14 | 91 |
| | No Home ... ... ... ... ... | | | | | | | | | | | 6 | 4 | 4 | 5 | 19 |

# TABLE No. 6.

*DEATHS in the Sub-Districts during the year 1895, classified according to Ages and Diseases.*

| | EAST SUB-DISTRICT. | | | | | | | WEST SUB-DISTRICT. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGES | | | | | | TOTALS | AGES | | | | | | TOTALS |
| | 0 to . | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | | 0 to 1 | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | |
| I.—ZYMOTIC DISEASES .. | 67 | 74 | 21 | 27 | 8 | 5 | 202 | 86 | 83 | 35 | 22 | 6 | 3 | 235 |
| II.—PARASITIC DISEASES .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | | . | .. | 1 |
| III,—DIETIC DISEASES .. | .. | .. | . | 2 | .. | .. | 2 | .. | .. | .. | 2 | . | .. | 2 |
| IV.—CONSTITUTIONAL DISEASES.. | 54 | 17 | 19 | 47 | 11 | .. | 148 | 30 | 14 | 13 | 42 | 14 | 1 | 114 |
| V.—DEVELOPMENTAL DISEASES.. | 31 | 1 | .. | 1 | 29 | 32 | 94 | 30 | .. | . | .. | 25 | 37 | 92 |
| VI.—LOCAL DISEASES .. | 182 | 81 | 37 | 133 | 111 | 23 | 567 | 96 | 71 | 26 | 125 | 111 | 40 | 469 |
| VII.—VIOLENCE .. .. | 3 | 5 | 14 | 8 | 2 | .. | 32 | 1 | 3 | 2 | 3 | 2 | 2 | 13 |
| VIII.—ILL-DEFINED CAUSES .. | 46 | 4 | 2 | 4 | 4 | 1 | 61 | 33 | .. | 2 | 1 | 1 | .. | 37 |
| TOTALS .. | 383 | 182 | 93 | 222 | 165 | 61 | 1106 | 276 | 171 | 79 | 195 | 159 | 83 | 963 |
| **I—Zymotic Diseases.** | | | | | | | | | | | | | | |
| 1—MIASMATIC. | | | | | | | | | | | | | | |
| Measles .. .. .. .. | 3 | 16 | 1 | .. | .. | ... | 20 | 3 | 16 | 1 | .. | .. | .. | 20 |
| Scarlet Fever .. .. .. | 1 | 13 | 2 | .. | .. | .. | 16 | 2 | 13 | 3 | .. | .. | .. | 18 |
| Whooping Cough .. .. .. | 14 | 19 | 1 | .. | .. | .. | 34 | 10 | 9 | .. | .. | .. | .. | 19 |
| Diphtheria .. .. .. .. | 1 | 12 | 15 | 1 | .. | .. | 29 | 1 | 32 | 21 | 1 | .. | .. | 55 |
| Typhoid Fever .. .. .. | 1 | 2 | 2 | 4 | 1 | .. | 10 | .. | .. | 4 | 4 | .. | .. | 8 |
| Influenza .. .. .. .. | .. | .. | .. | 18 | 5 | 3 | 26 | 1 | 1 | 6 | 13 | 4 | 3 | 29 |
| 2—DIARRHŒAL. | | | | | | | | | | | | | | |
| Diarrhœa .. .. .. .. | 45 | 12 | .. | .. | .. | 1 | 58 | 63 | 12 | .. | 1 | 1 | .. | 77 |
| 4—ZOOGENOUS. | | | | | | | | | | | | | | |
| Vaccination .. .. .. | 1 | .. | . | .. | .. | .. | 1 | .. | .. | .. | . | .. | .. | |
| 5—VENEREAL. | | | | | | | | | | | | | | |
| Syphilis .. .. .. .. | 1 | .. | .. | 2 | 1 | .. | 4 | 3 | .. | .. | .. | .. | .. | 3 |
| 6—SEPTIC. | | | | | | | | | | | | | | |
| Erysipelas . .. .. .. | .. | .. | .. | .. | 1 | 1 | 2 | 3 | .. | .. | 2 | .. | ... | 5 |
| Tetanus .. .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 |
| Puerperal Fever .. .. .. | .. | .. | .. | 2 | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. |
| **II—Parasitic Diseases.** | | | | | | | | | | | | | | |
| Hydatids .. .. .. .. | .. | .. | .. | .. | .. | .. | .. | . | .. | 1 | .. | .. | .. | 1 |
| **III—Dietic Diseases.** | | | | | | | | | | | | | | |
| Chronic Alcoholism .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 |
| Delirium Tremens .. .. | .. | . | .. | 2 | .. | .. | 2 | .. | .. | .. | 1 | .. | .. | 1 |
| **IV—Constitutional Diseases.** | | | | | | | | | | | | | | |
| Rheumatic Fever .. .. .. | .. | .. | 3 | .. | .. | . | 3 | .. | .. | .. | .. | .. | .. | .. |
| Rheumatism .. .. .. | .. | .. | .. | 1 | .. | .. | 1 | .. | .. | .. | 2 | 1 | 1 | 4 |
| Gout .. .. . .. | .. | .. | .. | .. | | .. | .. | .. | .. | .. | .. | 1 | .. | 1 |
| Rickets .. .. .. .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | 1 |

## *TABLE No. 6—Continued.*

| | EAST SUB-DISTRICT. | | | | | | | WEST SUB-DISTRICT. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGES | | | | | | | AGES | | | | | | |
| | 0 to 1 | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | TOTALS | 0 to 1 | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | TOTALS |
| **IV—Constitutional Diseases** *—Continued—* | | | | | | | | | | | | | | |
| Malignant Disease | .. | .. | 1 | 13 | 4 | .. | 18 | .. | . | .. | 13 | 10 | .. | 25 |
| Tabes Mesenterica | 6 | 4 | .. | . | .. | .. | 10 | 3 | 2 | .. | .. | | .. | 5 |
| Tubercular Meningitis | 1 | 3 | 1 | . | . | .. | 5 | 1 | 1 | 4 | .. | .. | .. | 6 |
| Phthisis | 16 | 6 | 13 | 32 | 6 | .. | 73 | 2 | 1 | 7 | 26 | 1 | .. | 37 |
| Other Tuberculoses | 3 | . | 1 | . | . | .. | 4 | 1 | 1 | 1 | | .. | .. | 3 |
| Purpura | . | .. | .. | | .. | .. | .. | 1 | .. | .. | .. | . | .. | 1 |
| Anæmia | . | .. | .. | .. | .. | .. | .. | .. | 1 | . | 1 | 1 | .. | 3 |
| Diabetes | . | . | . | 1 | 1 | .. | 2 | .. | .. | 1 | .. | .. | .. | 1 |
| Others | 28 | 4 | | . | .. | .. | 32 | 22 | 7 | | .. | .. | .. | 22 |
| **V—Developmental Diseases.** | | | | | | | | | | | | | | |
| Premature Birth | 26 | | . | .. | .. | .. | 26 | 26 | .. | | . | .. | .. | 26 |
| Atelectasis | 2 | 1 | .. | .. | . | .. | 3 | .. | .. | .. | .. | .. | .. | .. |
| Congenital Malformations | 3 | .. | .. | .. | | .. | 3 | 4 | .. | . | | .. | .. | 4 |
| Old Age | .. | | | 1 | 29 | 32 | 62 | .. | .. | .. | .. | 25 | 37 | 62 |
| **VI—Local Diseases.** | | | | | | | | | | | | | | |
| 1—NERVOUS SYSTEM. | | | | | | | | | | | | | | |
| Meningitis | 19 | 7 | 3 | .. | 1 | .. | 30 | 5 | 11 | 1 | .. | 3 | .. | 20 |
| Apoplexy | | 1 | | 11 | 15 | 2 | 29 | .. | | .. | 5 | 8 | 4 | 17 |
| Epilepsy | .. | . | 2 | 2 | .. | .. | 4 | . | .. | 1 | 5 | 2 | .. | 8 |
| Convulsions | 31 | 6 | | | . | .. | 37 | 20 | 9 | .. | .. | | .. | 29 |
| Diseases of Spinal Cord | .. | 1 | . | 1 | . | .. | 2 | | .. | 1 | 1 | 1 | .. | 3 |
| Others | .. | .. | 1 | 4 | 3 | 2 | 10 | . | .. | .. | 4 | 8 | 3 | 15 |
| 2—ORGANS OF SPECIAL SENSE. | | | | | | | | | | | | | | |
| Otitis media | .. | .. | .. | 1 | .. | .. | 1 | . | 1 | 1 | .. | .. | .. | 2 |
| Ophthalmia | 1 | .. | .. | .. | .. | .. | 1 | | .. | .. | .. | .. | .. | .. |
| 3 CIRCULATORY SYSTEM. | | | | | | | | | | | | | | |
| Diseases of Heart | | | 5 | 14 | 19 | 4 | 42 | | . | 10 | 37 | 22 | 8 | 77 |
| Aneurism | .. | | | | .. | .. | .. | | . | .. | 1 | .. | .. | 1 |
| Others | .. | . | .. | .. | | .. | . | .. | .. | .. | 1 | . | .. | 1 |
| 4 RESPIRATORY SYSTEM. | | | | | | | | | | | | | | |
| Croup, Laryngitis | .. | 4 | .. | .. | .. | .. | 4 | .. | 3 | 1 | .. | .. | .. | 4 |
| Emphysema Asthma | .. | .. | | 1 | 1 | .. | 2 | .. | .. | .. | 1 | .. | .. | 1 |
| Bronchitis | 17 | 14 | 2 | 32 | 47 | 14 | 126 | 21 | 16 | .. | 22 | 37 | 20 | 116 |
| Pneumonia | 29 | 28 | 9 | 35 | 14 | .. | 115 | 13 | 19 | 2 | 14 | 13 | .. | 61 |
| Pleurisy | .. | .. | . | 3 | . | .. | 3 | .. | 1 | . | 1 | .. | 1 | 3 |
| Others | .. | .. | .. | 2 | .. | 1 | 3 | .. | 1 | .. | 1 | 2 | 1 | 5 |
| 5—DIGESTIVE SYSTEM. | | | | | | | | | | | | | | |
| Dentition | 9 | 4 | .. | .. | .. | .. | 13 | 4 | 5 | . | . | | .. | 9 |
| Sore Throat | .. | 1 | 2 | .. | .. | .. | 3 | . | 1 | 1 | .. | .. | .. | 2 |
| Diseases of Stomach | 5 | 3 | .. | 2 | . | .. | 10 | 7 | 1 | .. | 2 | 1 | .. | 11 |
| Enteritis | 64 | 11 | 2 | 3 | 1 | .. | 81 | 20 | 3 | 1 | 3 | 1 | .. | 28 |

## TABLE No. 6—*Continued.*

| | EAST SUB-DISTRICT. | | | | | | | WEST SUB-DISTRICT. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGES | | | | | | | AGES | | | | | | |
| | 0 to 1 | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | TOTALS | 0 to 1 | 1 to 5 | 5 to 25 | 25 to 60 | 60 to 75 | 75 and upwards | TOTALS |
| 5 – DIGESTIVE SYSTEM—*Continued* | | | | | | | | | | | | | | |
| Obstructic Diseases of Intestine | 2 | .. | 1 | 2 | 3 | .. | 8 | | .. | .. | 3 | 1 | .. | 4 |
| Peritonitis | .. | .. | 3 | .. | .. | . | 3 | 1 | .. | 2 | 5 | 2 | .. | 10 |
| Cirrhosis of Liver | .. | . | 1 | 3 | .. | .. | 4 | .. | .. | .. | 2 | 3 | .. | 5 |
| Other Diseases of lhe Liver | 1 | .. | .. | 1 | 2 | .. | 4 | 2 | .. | .. | 3 | 2 | 1 | 8 |
| Parotitis | .. | .. | . | .. | .. | .. | .. | .. | .. | 1 | .. | .. | . | 1 |
| Others | 1 | .. | 1 | 2 | .. | .. | 4 | 1 | .. | .. | 2 | | .. | 3 |
| 8—URINARY SYSTEM. | | | | | | | | | | | | | | |
| Nephritis | 1 | 1 | 2 | 6 | 3 | .. | 13 | .. | 1 | 1 | 5 | 4 | 2 | 1 |
| Bladder or of Prostate | .. | .. | .. | 1 | 2 | .. | 3 | .. | .. | .. | 1 | 1 | .. | 2 |
| Others | .. | .. | .. | 1 | .. | . | 1 | .. | .. | . | .. | .. | .. | .. |
| 9 – REPRODUCTIVE SYSTEM. | | | | | | | | | | | | | | |
| B. *Of Parturition.* | | | | | | | | | | | | | | |
| Pregnancy | .. | .. | 1 | .. | .. | . | 1 | .. | .. | .. | | .. | .. | .. |
| Abortion | .. | . | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | 1 |
| Puerperal Convulsions | . | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | . | .. | 2 |
| Flooding | .. | .. | .. | 2 | .. | .. | 2 | .. | .. | 1 | 1 | .. | . | 2 |
| Others | .. | .. | 1 | 3 | .. | .. | 4 | .. | .. | .. | 2 | .. | .. | 2 |
| 10—BONES AND JOINTS. | | | | | | | | | | | | | | |
| Caries, Necrosis | 1 | .. | 1 | 1 | .. | | 3 | .. | .. | 2 | .. | .. | .. | 2 |
| 11—INTEGUMENTARY SYSTEM. | | | | | | | | | | | | | | |
| Integumentary System | 1 | ... | .. | . | . | .. | 1 | 1 | .. | .. | .. | .. | .. | 1 |
| VII—Violence. | | | | | | | | | | | | | | |
| 1—ACCIDENT OR NEGLIGENCE. | | | | | | | | | | | | | | |
| Fractures and Contusions | .. | 2 | 4 | 5 | 2 | .. | 13 | .. | .. | 1 | 2 | .. | 2 | 5 |
| Burn, Scald | .. | 3 | 2 | 1 | .. | . | 6 | .. | 3 | .. | 1 | 1 | .. | 5 |
| Drowning | .. | .. | 7 | 1 | .. | .. | 8 | . | .. | .. | .. | 1 | .. | 1 |
| Suffocation | 2 | .. | 1 | .. | .. | .. | 3 | 1 | .. | .. | .. | .. | .. | 1 |
| Otherwise | 1 | .. | .. | .. | .. | .. | 1 | .. | | .. | .. | .. | .. | .. |
| 2—HOMICIDE. | | | | | | | | | | | | | | |
| Manslaughter | .. | .. | .. | 1 | .. | .. | 1 | . | .. | .. | .. | .. | .. | .. |
| 3 – SUICIDE. | | | | | | | | | | | | | | |
| Gunshot | .. | .. | .. | . | .. | .. | .. | .. | .. | 1 | .. | .. | .. | 1 |
| VIII—Ill-Defined and not Specified Causes. | | | | | | | | | | | | | | |
| Dropsy | .. | | .. | 1 | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. |
| Debility, Atrophy, Inanition | 41 | 2 | .. | .. | .. | .. | 43 | 29 | .. | .. | .. | .. | ... | 29 |
| Mortification | 1 | .. | .. | .. | 3 | 1 | 5 | .. | .. | .. | .. | 1 | | 1 |
| Abscess | . | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | | . | .. |
| Causes not specified | 4 | 2 | 1 | 3 | 1 | .. | 11 | 4 | .. | 2 | 1 | .. | . | 7 |

# TABLE No. 7.

*TABLE OF DEATHS during the year 1895, in the Urban Sanitary District of WOLVERHAMPTON; classified according to* DISEASES, AGES, AND LOCALITIES, *and the proportion of Deaths which occurred in public Institutions.*

| | | MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES. | | | | | | | | MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE. | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | At all Ages. | Under 1 year. | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 60 | 60 and upwards | | 2 | 3 | 6 | 9 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 20 | 21 | 22 |
| | | | | | | | | | | Scarlatina | Diphtheria | Fevers. Enteric or Typhoid | Fevers. Puerperal | Erysipelas | Measles | Whooping Cough | Diarrhœa and Dysentery | Rheumatic Fever | Phthisis | Bronchitis, Pneumonia, and Pleurisy | Heart Disease | Injuries | All other Diseases | TOTAL |
| (*a*) | | (*b*) | (*c*) | (*d*) | (*e*) | (*f*) | (*g*) | (*h*) | (*i*) | | | | | | | | | | | | | | | |
| East Sub-District | | 1106 | 383 | 182 | 53 | 40 | 222 | 226 | Under 5 yrs | 14 | 13 | 3 | ... | ... | 19 | 33 | 57 | ... | 22 | 88 | ... | 8 | 308 | 565 |
| | | | | | | | | | 5 & upwards | 2 | 16 | 7 | 2 | 2 | 1 | 1 | 1 | 3 | 51 | 156 | 42 | 24 | 233 | 541 |
| West Sub-District | | 963 | 276 | 171 | 51 | 28 | 195 | 242 | Under 5 yrs | 15 | 33 | ... | ... | 3 | 19 | 19 | 75 | ... | 3 | 70 | ... | 4 | 206 | 447 |
| | | | | | | | | | 5 & upwards | 3 | 22 | 8 | ... | 2 | 1 | ... | 2 | ... | 34 | 110 | 77 | 9 | 248 | 516 |
| TOTAL IN BOROUGH | | 2069 | 659 | 353 | 104 | 68 | 417 | 468 | Under 5 yrs | 29 | 46 | 3 | ... | 3 | 38 | 52 | 132 | ... | 25 | 158 | ... | 12 | 514 | 1012 |
| | | | | | | | | | 5 & upwards | 5 | 38 | 15 | 2 | 4 | 2 | 1 | 3 | 3 | 85 | 266 | 119 | 33 | 481 | 1057 |
| Deaths in Institutions in the East Sub-District. | General Hospital | 176 | 7 | 26 | 29 | 30 | 74 | 10 | Under 5 yrs | ... | 7 | ... | ... | ... | ... | 1 | ... | ... | 1 | 2 | ... | 7 | 15 | 33 |
| | | | | | | | | | 5 & upwards | ... | 4 | 10 | ... | ... | 1 | ... | ... | 2 | 3 | 9 | 21 | 32 | 61 | 143 |
| | Workhouse | 205 | 19 | 4 | 1 | 3 | 66 | 112 | Under 5 yrs | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | 20 | 23 |
| | | | | | | | | | 5 & upwards | ... | ... | 1 | ... | 1 | ... | ... | 1 | ... | 6 | 38 | 23 | ... | 112 | 182 |
| | From outside the Borough | 138 | 3 | 8 | 16 | 10 | 51 | 50 | Under 5 yrs | ... | 3 | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 3 | 4 | 11 |
| | | | | | | | | | 5 & upwards | ... | ... | 2 | ... | ... | ... | ... | 1 | ... | 2 | 12 | 19 | 20 | 71 | 127 |
| | From West Sub-District | 91 | 8 | 13 | 4 | 9 | 37 | 20 | Under 5 yrs | ... | 4 | ... | ... | ... | ... | ... | ... | ... | 1 | 2 | ... | 1 | 13 | 21 |
| | | | | | | | | | 5 & upwards | ... | 2 | 5 | ... | ... | ... | ... | ... | ... | 3 | 12 | 12 | 5 | 31 | 70 |

# TABLE No. 8.

*Deaths and Death Rates for the past Twenty-three years.*

| Year. | East Sub-District. | | | | West Sub-District. | | | | Borough. | | | | Estimated Populations. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total. | Rate. | Zymotic. | Rate. | Total. | Rate. | Zymotic. | Rate. | Total. | Rate. | Zymotic. | Rate. | East. | West. | Borough. |
| 1873 | 1,125 | 29·7 | ... | ... | 631 | 19·8 | ... | ... | 1,756 | 25·1 | ... | ... | 38,010 | 31,841 | 69,906 |
| 1874 | 1,048 | 27·6 | ... | ... | 627 | 19·3 | ... | ... | 1,675 | 23·6 | ... | ... | 38,087 | 32,487 | 70,636 |
| 1875 | 1,155 | 30·3 | ... | ... | 640 | 19·3 | ... | .. | 1,795 | 25·2 | ... | ... | 38,163 | 33,140 | 71,373 |
| *1876 | 1,099 | 28·2 | ... | ... | 655 | 19·0 | ... | ... | 1,754 | 23·9 | ... | ... | 38,241 | 33,806 | 72,118 |
| 1877 | 1,157 | 30·2 | . | ... | 611 | 17·7 | ... | ... | 1,768 | 24·3 | ... | ... | 38,318 | 34,485 | 72,871 |
| 1878 | 1,081 | 28·2 | ... | ... | 644 | 18 3 | ... | ... | 1,725 | 23·5 | ... | .. | 38,396 | 35,178 | 73,632 |
| 1879 | 1,093 | 28·5 | ... | ... | 608 | 17·0 | ... | ... | 1,701 | 22·9 | ... | .. | 38,474 | 35.884 | 74,402 |
| 1880 | 960 | 24·9 | .. | ... | 629 | 17·2 | ... | ... | 1,589 | 21·2 | ... | ... | 38,552 | 36,606 | 75,178 |
| *1881 | 998 | 25·4 | ... | ... | 650 | 17·1 | ... | ... | 1,648 | 21·3 | ... | ... | 38,620 | 37,305 | 75,932 |
| 1882 | 1,056 | 27·4 | ... | ... | 657 | 17·3 | ... | ... | 1,713 | 22·4 | .. | ... | 38,663 | 37.909 | 76,596 |
| 1883 | 1,042 | 27·0 | ... | ... | 601 | 15·6 | .. | ... | 1,643 | 21·3 | ... | ... | 38,706 | 38,522 | 77,266 |
| 1884 | 1,158<br>981 | 29·9<br>25·4 | 222 | 5·7 | 699<br>753 | 17·9<br>19·3 | 115 | 2·9 | 1,857<br>1,734 | 23·9<br>22·3 | 337 | 4·3 | 38,748 | 39,146 | 77,942 |
| *1885 | 1,012<br>844 | 25·6<br>21·4 | 102 | 2·5 | 658<br>720 | 16·2<br>17·8 | 74 | 1·8 | 1,670<br>1,564 | 20·9<br>19·5 | 176 | 2·2 | 38,791 | 39,779 | 78,624 |
| 1886 | 1,125<br>955 | 29·0<br>24·6 | 182 | 4·7 | 697<br>746 | 17·3<br>18·5 | 156 | 3·8 | 1,822<br>1,701 | 23·0<br>21·5 | 338 | 4·2 | 38,834 | 40,423 | 79,311 |
| 1887 | 1,133<br>944 | 29·2<br>24·3 | 122 | 3·1 | 659<br>720 | 16·1<br>17·5 | 102 | 2·4 | 1,792<br>1,664 | 22·4<br>20·8 | 224 | 2·8 | 38,876 | 41,077 | 80,005 |
| 1888 | 1,005<br>827 | 25·8<br>21·3 | 95 | 2·4 | 707<br>768 | 17·0<br>18·5 | 121 | 2·9 | 1,712<br>1,595 | 21·2<br>19·8 | 216 | 2·6 | 38,919 | 41,741 | 80,705 |
| 1889 | 1,065<br>883 | 27·4<br>22·7 | 104 | 2·6 | 674<br>737 | 15·9<br>17·4 | 102 | 2·4 | 1,739<br>1,620 | 21·4<br>19·9 | 206 | 2·5 | 38,962 | 42,417 | 81,411 |
| *1890 | 1,183<br>977 | 29·8<br>24·6 | 98 | 2·4 | 725<br>795 | 16·5<br>18·1 | 80 | 1·8 | 1,908<br>1,772 | 22·8<br>21·2 | 178 | 2·1 | 39,005 | 43,103 | 82,124 |
| 1891 | 1,214<br>1,026 | 31·1<br>26·3 | 120 | 3·0 | 822<br>888 | 18·8<br>20·3 | 122 | 2·7 | 2,036<br>1,914 | 24·6<br>23·1 | 242 | 2·9 | 39,048 | 43,800 | 82,842 |
| 1892 | 1,117<br>935 | 28·6<br>24·0 | 125 | 3·2 | 724<br>781 | 16·3<br>17·6 | 95 | 2·1 | 1,841<br>1,716 | 22·1<br>20·6 | 220 | 2·6 | 39,091 | 44,509 | 83,567 |
| 1893 | 1,260<br>1,040 | 32·3<br>26·6 | 153 | 3·9 | 730<br>813 | 16·1<br>18·0 | 129 | 2·8 | 1,990<br>1,853 | 23·6<br>22 0 | 282 | 3·3 | 39,134 | 45,229 | 84,298 |
| 1894 | 1,175<br>975 | 30·0<br>24·9 | 193 | 4·9 | 668<br>744 | 14 5<br>16·2 | 121 | 2·6 | 1,843<br>1,719 | 21·7<br>20·2 | 314 | 3·7 | 39,177 | 45,961 | 85,036 |
| 1895 | 1,335<br>1,106 | 34·1<br>28·2 | 202 | 5·1 | 872<br>963 | 18·7<br>20·6 | 235 | 5·0 | 2,207<br>2,069 | 25·8<br>24·2 | 437 | 5·1 | 39,220 | 46 706 | 85,781 |

* These years contain 53 weeks

For explanation, see remarks at end of the text.

# TABLE No. 9.—Eleven Years' Annual Deaths, &c.

| | *<br>1885 | 1886 | 1887 | 1888 | 1889 | *<br>1890 | 1891 | 1892 | 1893 | 1894 | 1895 | A |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small Pox... ... ... ... | — | — | — | — | — | — | — | — | 1 | 5 | — | 0·6 |
| Measles .. ... ... ... | 1 | 111 | 31 | 39 | 40 | 32 | 25 | 41 | 21 | 73 | 40 | 41·4 |
| Scarlet Fever ... ... ... | 46 | 5 | 16 | 17 | 6 | 13 | 14 | 3 | 25 | 55 | 34 | 20·0 |
| Whooping Cough ... ... ... | 41 | 22 | 29 | 58 | 48 | 27 | 26 | 80 | 4 | 28 | 53 | 36·3 |
| Diphtheria .. ... ... ... | 10 | 10 | 7 | 10 | 7 | 4 | 5 | 4 | 5 | 33 | 84 | 9·5 |
| Typhoid Fever ... ... ... | 4 | 9 | 14 | 11 | 9 | 9 | 15 | 16 | 23 | 17 | 18 | 12·7 |
| Diarrhœa ... ... ... ... | 50 | 149 | 105 | 60 | 84 | 68 | 105 | 55 | 161 | 62 | 135 | 89·9 |
| Phthisis and Respiratory... ... | 503 | 486 | 512 | 560 | 485 | 673 | 668 | 582 | 560 | 520 | 553 | 554·9 |
| 60 years and upwards ... ... | 396 | 367 | 419 | 406 | 406 | 452 | 491 | 400 | 445 | 389 | 468 | 417·1 |
| Under 1 year ... ... ... | 390 | 490 | 469 | 445 | 479 | 477 | 531 | 482 | 600 | 484 | 659 | 484·7 |
| 1—5 years... ... ... ... | 211 | 345 | 272 | 237 | 299 | 250 | 287 | 275 | 212 | 310 | 353 | 269·8 |
| Under 1 year per 1,000 Births ... | 138 | 174 | 175 | 166 | 179 | 174 | 188 | 171 | 206 | 167 | 217 | 173·8 |
| Total Deaths ... ... ... | 1564 | 1701 | 1664 | 1595 | 1620 | 1772 | 1914 | 1716 | 1853 | 1719 | 2069 | 1711·8 |
| Rate per 1,000 ... ... ... | 19·5 | 21·5 | 20·8 | 19·8 | 19·9 | 21·2 | 23·1 | 20·6 | 22·0 | 20·2 | 24·2 | 20·86 |
| Zymotics ... ... ... ... | 176 | 338 | 224 | 216 | 206 | 178 | 242 | 220 | 282 | 314 | 437 | 239·6 |
| Rate per 1,000 ... ... ... | 2·2 | 4·2 | 2·8 | 2·6 | 2·5 | 2·1 | 2·9 | 2·6 | 3·3 | 3·7 | 5·1 | 2·89 |
| Births ... ... ... ... | 2806 | 2803 | 2675 | 2674 | 2666 | 2735 | 2820 | 2805 | 2902 | 2889 | 3027 | 2777·5 |
| Rate per 1,000 ... ... ... | 35·1 | 35·4 | 33·5 | 33·2 | 32·8 | 32·8 | 34·1 | 33·6 | 34 5 | 34·0 | 35·4 | 33·90 |

* These years contain 53 weeks. A—Annual averages for the ten years preceding 1895.

## TABLE No. 9a.—Eleven Years' Quarterly Deaths.

| | 1885 | | | | 1886 | | | | 1887 | | | | 1888 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quarters ending | 31/3 | 27/6 | 26/0 | *2/1 | 3/4 | 3/7 | 2/10 | 1/1 | 2/4 | 2/7 | 30/9 | 31/12 | 31/3 | 30/6 | 29/9 | 29/12 |
| Small Pox ... | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Measles ... | 1 | — | — | — | — | — | 8 | 103 | 19 | 4 | 7 | 1 | 9 | 6 | 5 | 19 |
| Scarlet Fever... | 17 | 14 | 9 | 6 | 1 | 3 | 1 | — | 2 | 1 | 5 | 8 | 8 | 4 | 4 | 1 |
| Whooping C... | 27 | 7 | 4 | 3 | 2 | 8 | 6 | 6 | 6 | 1 | 7 | 15 | 20 | 14 | 11 | 4 |
| Diphtheria ... | 5 | — | 1 | 4 | 6 | 3 | — | 1 | — | 3 | 1 | 3 | 4 | 4 | 1 | 1 |
| Typhoid Fever. | 2 | 1 | — | 1 | 3 | 1 | 1 | 4 | 1 | 2 | 5 | 6 | 2 | 5 | 2 | 2 |
| Diarrhœa ... | 4 | 6 | 26 | 14 | 6 | 10 | 98 | 35 | 6 | 4 | 90 | 5 | 4 | 7 | 30 | 19 |
| Phthisis and Respiratory | 165 | 114 | 75 | 149 | 159 | 103 | 77 | 147 | 170 | 120 | 75 | 147 | 184 | 137 | 95 | 144 |
| 60 yrs. and upw. | 135 | 73 | 79 | 109 | 127 | 83 | 64 | 93 | 134 | 130 | 66 | 89 | 127 | 98 | 80 | 101 |
| Under 1 year... | 86 | 106 | 84 | 114 | 106 | 95 | 148 | 141 | 98 | 95 | 172 | 104 | 118 | 103 | 113 | 111 |
| 1—5 years ... | 80 | 48 | 32 | 51 | 56 | 51 | 73 | 165 | 84 | 40 | 63 | 85 | 73 | 63 | 37 | 64 |
| Total Deaths... | 466 | 369 | 312 | 417 | 446 | 342 | 382 | 531 | 447 | 394 | 417 | 406 | 478 | 395 | 335 | 387 |
| Rate per 1,000 | 23·7 | 18·8 | 15·9 | 19·7 | 22·5 | 17·3 | 19·3 | 26·8 | 22·4 | 19·7 | 20·9 | 20·3 | 23·7 | 19·6 | 16·6 | 19·2 |
| Zymotics ... | 64 | 31 | 45 | 36 | 27 | 32 | 121 | 158 | 39 | 20 | 122 | 43 | 61 | 45 | 56 | 54 |
| Rate per 1,000 | 3·2 | 1·5 | 2·2 | 1·7 | 1·3 | 1·6 | 6·1 | 7·9 | 1·9 | 1·0 | 6·1 | 2·1 | 3·0 | 2·2 | 2·7 | 2·6 |
| Estimated Population | 78,624 | | | | 79,311 | | | | 80,005 | | | | 80,705 | | | |

| | 1889 | | | | 1890 | | | | 1891 | | | | 1892 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quarters ending | 30/3 | 29/6 | 28/9 | 28/12 | 29/3 | 28/6 | 27/9 | *3/1/91 | 4/4 | 4/7 | 3/10 | 2/1 92 | 2/4 | 2/7 | 1/10 | 31/12 |
| Small Pox ... | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Measles ... | 10 | 11 | 11 | 8 | 3 | 10 | 5 | 14 | 5 | — | — | 20 | 21 | 16 | 3 | 1 |
| Scarlet Fever... | 2 | — | 1 | 3 | 4 | 2 | 3 | 4 | 2 | 2 | 2 | 8 | 1 | — | — | 2 |
| Whooping C... | 4 | 14 | 6 | 24 | 17 | 8 | — | 2 | — | — | 5 | 21 | 47 | 27 | 3 | 3 |
| Diphtheria ... | — | 2 | 2 | 3 | 3 | — | — | 1 | 1 | 2 | 1 | 1 | — | 3 | 1 | — |
| Typhoid Fever. | 1 | 2 | 4 | 2 | 2 | 3 | 1 | 3 | 5 | 2 | 5 | 3 | 1 | 7 | 5 | 3 |
| Diarrhœa ... | 3 | 8 | 56 | 17 | 7 | 3 | 42 | 16 | 5 | 7 | 66 | 27 | 7 | 4 | 31 | 13 |
| Phthisis and Respiratory | 165 | 116 | 76 | 128 | 248 | 139 | 109 | 177 | 177 | 204 | 84 | 203 | 241 | 129 | 84 | 128 |
| 60 yrs. and upw. | 130 | 84 | 87 | 105 | 144 | 91 | 80 | 137 | 137 | 168 | 79 | 107 | 143 | 93 | 69 | 95 |
| Under 1 year... | 103 | 109 | 138 | 129 | 116 | 79 | 147 | 135 | 93 | 120 | 159 | 159 | 143 | 107 | 120 | 112 |
| 1—5 years ... | 67 | 71 | 74 | 87 | 83 | 57 | 43 | 67 | 47 | 54 | 50 | 136 | 123 | 81 | 40 | 31 |
| Total Deaths... | 433 | 378 | 386 | 423 | 545 | 365 | 392 | 470 | 417 | 536 | 400 | 561 | 587 | 415 | 340 | 374 |
| Rate per 1,000 | 21·3 | 18·6 | 19·0 | 20·8 | 26·6 | 17·8 | 19·1 | 21·3 | 20·2 | 25·9 | 19·3 | 27·1 | 28·1 | 19·9 | 16·3 | 17·9 |
| Zymotics ... | 22 | 42 | 82 | 60 | 44 | 30 | 58 | 46 | 24 | 41 | 88 | 89 | 92 | 59 | 45 | 24 |
| Rate per 1,000 | 1·0 | 2·0 | 4·0 | 2·9 | 2·1 | 1·4 | 2·8 | 2·0 | 1·1 | 1·9 | 4·2 | 4·3 | 4·4 | 2·8 | 2·1 | 1·1 |
| Estimated Population | 81,411 | | | | 82,124 | | | | 82,842 | | | | 83,567 | | | |

| | 1893 | | | | 1894 | | | | 1895 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Quarters ending | 1/4 | 1/7 | 30/9 | 30/12 | 31/3 | 30/6 | 29/9 | 29/12 | 30/3 | 29/6 | 28/9 | 28/12 |
| Small Pox ... | — | — | — | 1 | — | 3 | 2 | — | — | — | — | — |
| Measles ... | 6 | — | 5 | 10 | 46 | 27 | — | — | — | — | 7 | 33 |
| Scarlet Fever... | 1 | 1 | 6 | 17 | 7 | 19 | 19 | 10 | 17 | 2 | 8 | 7 |
| Whooping C... | 1 | — | 1 | 2 | 5 | 10 | 11 | 2 | 8 | 12 | 14 | 19 |
| Diphtheria ... | — | 1 | 1 | 3 | 5 | 8 | 10 | 10 | 19 | 24 | 14 | 27 |
| Typhoid Fever. | 3 | 4 | 9 | 7 | — | 2 | 6 | 9 | 3 | — | 5 | 10 |
| Diarrhœa ... | 3 | 11 | 140 | 7 | 4 | 1 | 44 | 13 | 2 | 1 | 113 | 19 |
| Phthisis and Respiratory | 156 | 136 | 98 | 170 | 154 | 143 | 91 | 132 | 211 | 138 | 89 | 115 |
| 60 yrs. and upw. | 100 | 118 | 91 | 136 | 102 | 114 | 82 | 91 | 194 | 111 | 83 | 80 |
| Under 1 year... | 127 | 99 | 232 | 142 | 115 | 115 | 129 | 125 | 138 | 113 | 260 | 148 |
| 1—5 years ... | 24 | 34 | 71 | 83 | 96 | 91 | 68 | 55 | 79 | 65 | 89 | 120 |
| Total Deaths... | 403 | 389 | 535 | 526 | 460 | 473 | 394 | 392 | 599 | 439 | 556 | 475 |
| Rate per 1,000 | 19·1 | 18·5 | 25·4 | 25·0 | 21·7 | 22·3 | 18·5 | 18·5 | 28·0 | 20·5 | 26·0 | 22·2 |
| Zymotics ... | 19 | 22 | 169 | 72 | 81 | 86 | 98 | 49 | 79 | 69 | 174 | 115 |
| Rate per 1,000 | 0·9 | 1·0 | 8·0 | 3·4 | 8·8 | 4·0 | 4·6 | 2·3 | 3·6 | 3·2 | 8·1 | 5·3 |
| Estimated Population | 84,298 | | | | 85,036 | | | | 85,781 | | | |

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* These Quarters contain 14 weeks.

# *DEATH RATES, ETC., IN THE 33 GREAT TOWNS IN 1895.*

| | Population estimated to middle of 1895 | Birth-Rate. | Corrected Death-Rate. | Recorded Death Rates. | | | | | | | Deaths under 1 year to a 1000 Births. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Principal Zymotic Diseases. | Measles. | Scarlet Fever. | Diphtheria. | Whooping Cough. | Fever. | Diarrhœa | |
| England and Wales ... | | | 18·71 | | | | | | | | |
| England and Wales *less* 33 Towns | | | 17·41 | | | | | | | | |
| 33 Towns ... ... ... | 10,591,530 | 31·3 | 22·33 | 2·84 | 0·53 | 0·18 | 0·35 | 0·37 | 0·20 | 1·20 | 182 |
| London ... ... ... | 4,392,346 | 30·5 | 21·15 | 2·64 | 0·60 | 0·19 | 0·53 | 0·34 | 0·14 | 0·83 | 166 |
| West Ham ... ... .. | 249,473 | 34·3 | 19·28 | 3·24 | 0·91 | 0·18 | 0·77 | 0·23 | 0·26 | 0·85 | 168 |
| Croydon ... ... ... | 114,923 | 25·3 | 15·08 | 1·32 | 0·17 | 0·04 | 0·19 | 0·24 | 0·12 | 0·56 | 134 |
| Brighton ... ... ... | 119,604 | 25·6 | 19·09 | 1·75 | 0·22 | 0·04 | 0·15 | 0·35 | 0·12 | 0·87 | 164 |
| Portsmouth ... ... ... | 174,751 | 27·9 | 18·23 | 2·13 | 0·22 | 0·04 | 0·11 | 0·36 | 0·20 | 1·20 | 175 |
| Plymouth ... ... ... | 89,096 | 28·7 | 19·55 | 1·92 | 0·87 | 0·02 | 0·11 | 0·32 | 0·08 | 0·52 | 178 |
| Bristol ... ... ... | 228,139 | 28·9 | 18·87 | 1·30 | 0·04 | 0·07 | 0·15 | 0·20 | 0·09 | 0·75 | 143 |
| Cardiff ... ... .. | 155,637 | 34·3 | 20·32 | 2·43 | 0·30 | 0·05 | 0·36 | 0·34 | 0·10 | 1·20 | 179 |
| Swansea ... .. .. | 97,008 | 33·4 | 19·96 | 1·68 | 0·48 | 0·05 | 0·12 | 0·21 | 0·21 | 0·61 | 178 |
| **WOLVERHAMPTON...** | **85,780** | **35·4** | **25·51** | **4·23** | **0·48** | **0·39** | **0·98** | **0·62** | **0·20** | **1·56** | **218** |
| Birmingham ... ... ... | 496,751 | 32·4 | 22·41 | 2·67 | 0·27 | 0·26 | 0·37 | 0·35 | 0·16 | 1·24 | 183 |
| Norwich ... ... ... | 107,127 | 31·8 | 18·53 | 2·72 | 0·25 | 0·09 | 0·18 | 0·50 | 0·24 | 1·46 | 190 |
| Leicester ... ... .. | 193,839 | 30·8 | 18·71 | 2·98 | 0·17 | 0·08 | 0·18 | 0·44 | 0·20 | 1·91 | 203 |
| Nottingham ... ... ... | 226,658 | 29·7 | 20·45 | 2·23 | 0·00 | 0·23 | 0·04 | 0·14 | 0·24 | 1·58 | 190 |
| Derby ... ... ... .. | 100,272 | 29·1 | 18·42 | 1·95 | 0·07 | 0·08 | 0·06 | 0·21 | 0·18 | 1·27 | 161 |
| Birkenhead ... ... ... | 107,469 | 30·7 | 21·47 | 2·35 | 0·03 | 0·15 | 0·42 | 0·38 | 0·39 | 0·98 | 174 |
| Liverpool ... ... .. | 503,967 | 36·9 | 31·94 | 4·01 | 0·71 | 0·29 | 0·24 | 0·74 | 0·37 | 1·63 | 210 |
| Bolton ... ... .. | 119,337 | 32·9 | 27·15 | 4·45 | 1·04 | 0·19 | 0·13 | 0·56 | 0·45 | 2·07 | 212 |
| Manchester ... ... ... | 524,865 | 33·7 | 28·59 | 3·73 | 0·97 | 0·32 | 0·21 | 0·48 | 0·19 | 1·56 | 203 |
| Salford ... ... .. | 208,253 | 35·9 | 28·84 | 4·96 | 1·03 | 0·47 | 0·30 | 0·64 | 0·42 | 2·10 | 231 |
| Oldham ... ... ... | 141,079 | 27·5 | 25·16 | 2·79 | 0·70 | 0·11 | 0·18 | 0·38 | 0·18 | 1·08 | 190 |
| Burnley ... ... ... | 99,591 | 32·1 | 26·86 | 3·88 | 0·25 | 0·22 | 0·43 | 0·54 | 0·30 | 2·14 | 242 |
| Blackburn ... ... ... | 127,615 | 30·6 | 27·29 | 5·63 | 2·54 | 0·06 | 0·07 | 0·59 | 0·23 | 2·14 | 236 |
| Preston ... ... ... | 112,638 | 33·4 | 26·26 | 3·77 | 0·42 | 0·04 | 0·07 | 0·45 | 0·20 | 2·58 | 248 |
| Huddersfield ... .. | 99,482 | 21·7 | 19·63 | 1·20 | 0·12 | 0·19 | 0·15 | 0·20 | 0·06 | 0·48 | 158 |
| Halifax ... ... .. | 93,813 | 23·4 | 21·48 | 1·30 | 0·10 | 0·05 | 0·15 | 0·25 | 0·17 | 0·58 | 158 |
| Bradford ... ... ... | 226,384 | 26·1 | 22·72 | 2·51 | 0·08 | 0·11 | 0·09 | 0·47 | 0·18 | 1·58 | 203 |
| Leeds . ... ... ... | 395,546 | 31·6 | 22·71 | 2·69 | 0·34 | 0·13 | 0·16 | 0·28 | 0·21 | 1·57 | 191 |
| Sheffield ... ... ... | 342,768 | 34·9 | 22·75 | 3·17 | 0·55 | 0·10 | 0·15 | 0·21 | 0·28 | 1·88 | 197 |
| Hull ... ... ... .. | 216,722 | 34·2 | 21·89 | 3·32 | 0·09 | 0·18 | 0·17 | 0·20 | 0·22 | 2·46 | 205 |
| Sunderland ... ... ... | 137,705 | 35·1 | 22·86 | 3·50 | 0·07 | 0·08 | 0·06 | 0·46 | 0·96 | 1·87 | 189 |
| Gateshead ... ... ... | 95,871 | 34·6 | 21·03 | 2·63 | 0·29 | 0·15 | 0·20 | 0·65 | 0·16 | 1·18 | 186 |
| Newcastle ... ... .. | 207,021 | 31·2 | 22·31 | 2·52 | 0·68 | 0·11 | 0·25 | 0·29 | 0·23 | 0·96 | 186 |